Maine Community Epidemiology Surveillance Network April 2005 Report

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Table of Contents

List of Figures and Tables

Figures

Tables

Executive Summary

Introduction to the CESN

Drug and alcohol abuse in Maine involves a complex array of individual and societal problems, resulting in an extremely high cost to Maine citizens. In a 2004 report, the Office of Substance Abuse calculated the total annual public cost for 2000 at $618 million dollars, approximately $485 per capita. The high cost and the pervasive effects of substance abuse on public health and public safety make effective policy based on coordinated surveillance efforts imperative. The need for such monitoring was highlighted with the emergence in the late 1990's of the problems with OxyContin abuse, which grew to a dangerous level before the pattern appeared on the public health "radar screen." More recently, research on accidental overdoses became necessary to quantify and interpret a rising number of accidental methadone-related deaths. This report on Maine's drug and alcohol abuse patterns is the first in the Community Epidemiology Surveillance Network (CESN) semi-annual report series, focusing on multiple indicators, most of which are from 2003 and 2004.

In order to effectively monitor changes and emerging problems concerning drug misuse and abuse, it is necessary to utilize and interpret multi-agency and multi-disciplinary data sources on a regular basis. The data must be as close to "real-time" as possible in order to facilitate timely and appropriate interventions. This requires rapid turnaround for data submission and analysis, and effective information feedback to policy makers and service providers in public health and safety. The National Institute on Drug Abuse has developed a model called the Community Epidemiology Work Group for drug abuse surveillance, upon which Maine's CESN was modeled. The format used here is expected to evolve as the Maine system grows and develops.

Maine CESN indicators of drug misuse and abuse come from a broad range of sources, including surveys of use among adults and youth, qualitative interviews of key informants and drug users, law enforcement data, treatment data, and data regarding drug-related morbidity and mortality. Some sources have longitudinal data from which trends can be demonstrated. Other sources provide a snapshot of levels during the recent past, a baseline against which future CESN data can be compared. Some sources, for example data from the new Prescription Monitoring Program, will be available to the CESN in the near future. The CESN expects further modification of key informant and client interviews as it refines its model.

Because each of the drug data sources has strengths and limitations, using multiple indicators provides checks and balances in identifying emerging problems. Law enforcement activity, including arrests and prosecutions, is limited by levels of public funding. Thus, increases/decreases in arrest volume, for example, may be related to changes in appropriated funds for law enforcement as well as changing patterns of drug use. With the growth of prescription drug abuse, the need for new types of law enforcement training has affected patterns of apprehension, and the need for new legislation covering these newly abused and trafficked substances may affect patterns of drug seizure and prosecution.

Changes in the volume of treatment admissions for particular drugs may be related to changes in prevalence of misuse as well as fluctuations in available funding for specific treatment programs, such as jail-diversion programs like drug court or the Driver Education and Evaluation Program (DEEP), or the presence of new treatment providers or treatment modalities. Changes in the volume of accidental overdoses due to particular drugs are related to changing drug abuse prevalence, but also depend on relative risk associated with particular substances and substance combinations, and the likelihood of death. Furthermore, it is common that deaths are associated with more than one drug, which means that potentially lethal synergistic effects may result from smaller drug amounts.

Emerging Problems with Stimulants: Cocaine, Crack, and Methamphetamine

The rising abuse of stimulants in Maine, particularly cocaine, crack, and methamphetamine, constitutes an emerging and growing problem. This trend is already impacting youth in the general public, and is reflected in the increased volume of substance abuse treatment admissions, medical examiner cases, arrests, and prosecutions.

Cocaine and Crack Cocaine

Cocaine and crack cocaine abuse are both increasing across multiple indicators, with sharp increases in arrests and deaths. The percent of Maine youth in 10th through 12th grade who report any lifetime use of cocaine has risen slightly between 2002 and 2004. Among 12th graders, 8.6% report having ever used cocaine. In the recent past, deaths caused by cocaine have been relatively small in number, eight in calendar year 2003; but the final total for 2004, still based on estimates, is expected to reach 21. The sum of cocaine and crack arrests reported by the Maine Drug Enforcement Agency (MDEA) more than doubled from 113 in FY 2001 to 230 in 2004[1]. The percent of clients admitted for primary cocaine and crack treatment has had a comparable upswing, doubling from 2% (291) in FY 2002 to 4% (577) in 2004). Of those recently admitted, 49% report smoking as the primary route and 36% report inhaling.

Methamphetamine

Methamphetamine abuse has been moving eastward nationally and has now reached Maine. The MDEA documents 12 methamphetamine arrests for FY 2004, three times the number in 2002. Treatment admissions rose from 0.16% (19) in fiscal 2002 and 2003 to 0.28% (39) in 2004. Based on the 2002 and 2004 MYDAUS youth survey, the percent of 12th graders who reported any lifetime use of "stimulants" (including methamphetamine and amphetamine, but excluding cocaine) has nearly doubled, going from 7.2% to 14.3%. Use in younger grades has remained about the same or decreased slightly. The methamphetamine data constitute a "red flag," signaling trends that can

[1] The abbreviation of FY is used in this report as an abbreviation for 'fiscal year'. The State of Maine fiscal year extends from July 1 through June 30.

result in significant health risks. The indicators are all small in number, but are consistent across multiple indicators, likely the leading edge of a growing problem.

Alcohol and Marijuana Continue Dominant Roles

Alcohol

Alcohol has often received less public attention in Maine during recent years due to the ascendancy of mortality and morbidity associated with other substances. Yet it is responsible for more death and disability than any other substances. Among Maine youth (MYDAUS 2004), 30% of males and 29% of females in grades 6-12 report alcohol use during the previous 30 days. That proportion rises sharply with age, going from 7% in 6th grade to 49% in 12th grade.

In the recently released OSA cost report covering the calendar year 2000, alcohol was associated with 70% and other drugs with 30% of the $618 million total costs to Maine. Treatment for alcohol abuse alone cost $15 million that year. Alcohol consumes the vast majority of substance abuse treatment resources. Since 1990, alcohol admissions have comprised 74% of the admissions in OSA licensed facilities, having increased annually since FY1997. In FY2004 alone there were 7,873 persons admitted for alcohol dependency treatment (57% of clients admitted), comprising 12,524 admissions. Additionally, alcohol was reported as a secondary or tertiary problem in 1,282 other admissions, including 934 (46%) of marijuana admissions, as well as smaller amounts for other substances.

In 2000, 473 Maine deaths were attributed to alcohol, primarily associated with cancer, cirrhosis of the liver, and cerebrovascular disease, and 68 were drug-related. Most of the alcohol deaths are categorized as natural, rather than accidental, since they are associated with conditions resulting from long-term use.

Alcohol is present about 25% of the time in the toxicology findings for individuals dying of drug overdose, and sometimes is cited by the medical examiner as a cause of death. Of 148 drug deaths in 2003, alcohol was mentioned as a co-occurring cause in 24 (16%). In an additional 49 cases alcohol was implicated as a cause or contributing factor without co-occurring drug causes; of these, 15 were accidental deaths and 30 were natural. These 73 (24 + 49) alcohol-related deaths were all medical examiner cases; many more deaths each year are associated with alcohol but are not suspicious or unattended, and hence are not investigated as medical examiner cases.

Marijuana

Marijuana use is very common and frequently associated with other substances. Among Maine youth (MYDAUS 2004), 16% of males and 13% of females report marijuana use within the previous 30 days. The proportion reporting marijuana use in the previous 30 days increases rapidly with age, beginning at 1% in 6th grade and rising to 27% in 12th grade. The number of marijuana treatment admissions dropped slightly in FY2004 for the first time since 1990. In FY2004 alone 1,704 clients (12%) were admitted for marijuana dependency treatment. Marijuana was reported as secondary or tertiary problem substances in 2,833 admissions, most (2,154) of which were admissions for alcohol treatment.

Of 374 Maine drug-related deaths in 1997-2002, 18% of decedents had cannabinoids present in their toxicology findings. The percentage of MDEA marijuana arrests increased from 18% in FY2003 to 34% in FY2004 (estimated). Likewise prosecutions rose from 19% to 24% in the same period.

Increasing Problems with Prescription Drugs and Heroin

Prescription Drugs

Prescription drugs, frequently in combination, usually involving one or more narcotics, and often combined with benzodiazepines and/or alcohol, continue to be a significant problem in Maine. These patterns are reflected in surveys of Maine youth and adults, and also are being seen in other rural states. Treatment admissions and accidental overdose deaths involving narcotic analgesics (opiate and synthetic opiate pain medication), heroin, and benzodiazepines (tranquilizers) continue to increase in 2004. The narcotics including prescription opioids (synthetic opiates), as well as prescription morphine, and the (illicit) heroin have similar pharmacology, and often are substituted for one another by users. Tablet-form methadone, an opioid increasingly prescribed for pain during the past two years since OxyContin was removed as an approved drug for Maine Medicaid, has been increasingly misused or diverted, and is associated with a relatively higher risk of death than other analgesics, especially in combination with other narcotics or benzodiazepines. Among Maine's recent accidental overdoses, 94% are caused by at least one prescription drug, either alone or in combination with other substances, and 84% are caused by at least one narcotic. Narcotic pills are often converted by crushing for injection use. Doctor shopping and other illegal diversion strategies or theft fuel prescription drug trafficking and abuse. The following details from the data highlight Maine problems with prescription drugs:

- The Maine Office of Substance Abuse Treatment Data System (TDS) shows a 214% increase in admissions for prescription drug abuse between FY2000 and 2004.
    - From FY2000 to 2004 the percent of clients admitted for prescription narcotics treatment increased 78%, rising from 6% (514) to 10% (1,616) of clients admitted. The percent of clients admitted for benzodiazepine treatment rose from 0.5% (52) to 0.7% (101).
- The Maine Youth Drug and Alcohol Use Survey (MYDAUS 2002, 2004) shows that non-medical use of prescription drugs among youth in 6th-12th grades reveals a slight downward trend since calendar year 2002, but is still substantial:
    - 17% of 6^{th}-12^{th} graders report some lifetime use and 8% report current use (last 30 days).
    - 11^{th} graders have the highest percent of any lifetime use at 25% and the highest percent of current use at 12%.
- Figures released by the Maine Office of Medical Examiner (OCME) for calendar year 2003 shows that 94% of drug-related deaths were caused by at

least one prescription drug, alone or in combination with other substances, and a majority of deaths were caused by more than one substance.
    - Most prescription drug deaths are due to narcotic pain pills, often combined with other narcotics, benzodiazepines, and/or alcohol.
    - Methadone-related deaths in 2003 constitute 21% of drug deaths, down slightly from 2002 levels. However, the 2004 total is projected to exceed 2002 slightly. In cases where the type of methadone is known, more 2003 and 2004 deaths involve methadone tablets than liquid. Methadone carries higher death risks compared with other prescription opiates/opioids due to its long-acting nature combined with the very broad variation in individual tolerance.
- Arrests by the MDEA for illegal prescription drug possession or diversion rose from 16% in FY2003 to 18% in 2004. Prosecutions for prescription drug offenses by the Department of Attorney General have remained at 21% of drug cases.
- Interviews conducted for the CESN have been done with adults in homeless shelters, needle exchange programs, and intake interviews for opiate replacement therapy during summer 2004 (n=42). In addition, ethnographic data were collected in 2002 among street users of narcotics in Cumberland County by the Community Assessment of Substance Use in Maine (CASUM) project.
    - Many narcotics are seen on the street and readily available; OxyContin leads the drugs mentioned in CESN data.
    - Many benzodiazepines are seen on the street and readily available; Klonopin leads the drugs mentioned in CESN data.
    - Ethnographic CASUM data show that abusers generally choose other narcotics rather than methadone, if they are available.

Heroin/Morphine

Heroin is a substantial and continuing problem in Maine, more common among adults than youth. Because of the multiple-use pattern among abusers of narcotic substances, heroin use often is associated with the use of prescription narcotic analgesics. Heroin admissions have continued to rise in parallel with admissions for prescription narcotics. The percent of clients admitted for a primary problem with heroin showed a sharp increase beginning in 1999 they constituted 3% (297) of persons admitted for treatment. By FY2004 the percent was 7% (975).

An analysis of admissions for primary heroin addiction in 2003 reveals that 48% report a secondary or tertiary problem with a prescription narcotic analgesic. Similarly, 22% of the admissions for narcotic analgesics as a primary poblem report a secondary or tertiary problem with heroin. Heroin has caused an increasing number of deaths in recent years. In calendar year 2000 there were 10 heroin deaths. By 2003 the total was 28, 19% of drug deaths. Based on a mid-year projection, the 2004 total is expected to be in the mid 20's. Arrests for heroin, which totaled 90 in FY 2003, rose to 109 in FY2004.

Summary

Maine is experiencing substantial and increasing problems with abuse, diversion, and trafficking of drugs and abuse of alcohol. The related patterns of rising prescription drug abuse and narcotic abuse are seen in rural areas in many other states. Rural areas also have been at risk for methamphetamine manufacture and trafficking, and Maine is now experiencing that emerging trend. The following are highlights of the CESN findings:

- Alcohol abuse continues to dominate all substances with regard to treatment volume, associated health risks, and overall economic cost. Alcohol-related morbidity and mortality continue to rise, often associated with drug abuse.
- Marijuana abuse continues a dominant and increasing role in use of treatment and law enforcement resources. It often is associated with the abuse of other drugs.
- Heroin-related abuse continues to rise in Maine, often in combination with pharmaceutical narcotic analgesics.
- Prescription drug abuse continues to rise, particularly narcotics and benzodiazepines, which very often are used in combination with each other and with alcohol. Tablet methadone is increasingly prescribed instead of other narcotics for pain, but may carry greater risk for adverse events.
- Cocaine and crack cocaine abuse constitute an emerging problem as reflected in arrests, deaths, and treatment volume.
- Methamphetamine manufacture and abuse are rising across multiple indicators, although the absolute numbers are still small, constituting an emerging problem.
- Injection drug use plays a substantial role in Maine's drug abuse patterns, associated with prescription narcotics, heroin, cocaine, and methamphetamine, as well as with the prevalence and incidence of HIV-AIDS, hepatitis-B and hepatitis-C.
- Club drugs and hallucinogen trafficking have declined in Maine, apparently due in part to vigilance by law enforcement in order to prevent raves. The Northern New England Poison Center's Maine exposures due to abuse or withdrawal data suggest, however, that dextromethorphan abuse (common in cough suppressant medications) is prevalent and may pose a risk to Maine youth.

CESN Report Overview

Background of the CESN

The Maine Community Epidemiology Surveillance network (CESN) is a statewide system designed to monitor trends and emerging issues in drug use/misuse/abuse in order to minimize morbidity and mortality. Formed in 2003, Maine's CESN is based on the model used by the National Institute of Drug Abuse, Substance Abuse and Mental Health Services Administration (SAMHSA), Community Epidemiology Work Group. That system utilizes a broad range of public health and public safety quantitative data sources, as well as qualitative data from sources in direct contact with drug use and misuse.

The CESN effort is designed to benefit the public health and improve public safety. Drug and alcohol misuse and abuse constitutes an extremely complex problem of epidemic proportions in Maine. It is essential to have accurate and timely information that spans many types of data sources. Such information about drug use/misuse/abuse is necessary for appropriate public policy decision making. A comprehensive approach that integrates a wide range of sources and types of data provides the best opportunity to monitor trends, measure impacts, and reveal emerging problems.

The CESN is jointly administered by the Maine Office of Substance Abuse (OSA) and Bureau of Health (BOH). Funding to design and pilot the Maine approach was provided by SAMHSA's Center for Substance Abuse Treatment, implemented through Health Systems Research, Inc, which provided technical assistance from Dr. Marcella H. Sorg, University of Maine Margaret Chase Smith Policy Center (MCSPC), and Dr. Jane Maxwell, University of Texas-Austin. The CESN plans to produce semi-annual reports of aggregated data characteristics and trends, with continuing involvement from surveillance network members and the MCSPC's Rural Drug and Alcohol Research Program.

All quantitative and qualitative data collected on behalf of the CESN and its representatives were analyzed and presented without any personal identifying information. All participation is voluntary. Data analysis focuses on trends and drug-specific patterns of use/abuse/misuse, including age, sex, and other associated characteristics. No data below statewide patterns are reported with small cell sizes, according to the guidelines used by the BOH and OSA.

Quantitative data are provided by public health and public safety agencies which work with drug issues across the state, or by access to public reports and databases in print and web-based formats. Data directly provided to the CESN by administrative representatives of CESN participant agencies are contributed in either database or report formats. Participation of CESN agencies has been developed during a process of meetings and dialogue during the past two years. A list of sources for the CESN, including acronyms is provided below on page 16.

Methods and Indicators

Overview

The efforts of the CESN are directed at surveillance, that is, monitoring trends across multiple indicators and though time for the purpose of detecting emerging patterns. The datasets used by the CESN, however, are not necessarily designed for surveillance purposes. They span public health and public safety. For example, although quantities of drugs seized by law enforcement are related to the drug supplies on the streets, they are also related to which drugs police are searching for, which drugs carry a criminal penalty, and which drugs can be legally linked to the suspect.

Because of the heterogeneous purposes behind collection of these varied databases, the interpretation must be done with caution. Numbers are often small and subject to random fluctuations. Data collection methods may not be precise. For example, in drug death toxicology, because the chemical heroin degrades rapidly to morphine, it is usually not possible to distinguish between the two.

Data collection procedures vary across agencies. Frequently, surveillance and related analyses are not part of the agency's statute requirements and have been done by outside researchers, e.g., analysis of drug deaths.

The datasets cover varied time periods. The most common variant is whether the data cover the calendar or the fiscal year. Care has been taken in reporting results to note this important feature. Years refer to calendar year unless noted otherwise. Many data in this report, CESN's first, are not available over time, so no trend can be discerned. Rather, the data will form a baseline for future trend analysis in coming reports.

The "unit of analysis" (what the database is keeping track of) varies greatly across agency datasets. The CESN datasets focus on many different units of analysis, such as clients being treated, admissions, arrests, deaths, prosecutions, drug seizures, survey respondents, lab samples being tested, calls for information, calls to report a poisoning, and so forth. For example, OSA's Treatment Data System (TDS) tracks admissions for substance abuse treatment. Sometimes the TDS data have been "unduplicated" so that the numbers reflect persons admitted, rather than just admissions. In all cases where we reported the number of clients or admissions for a period, we also provide a companion figure showing the percent of all clients or admissions for that period. This allows the reader to differentiate changes that might be due to resource allocation at the state level from changes in population morbidity.

The data do not "hold still." For example, the TDS database and the drug death databases are constantly being updated, with corrections and modifications on a daily basis. Thus, the numbers may differ slightly between published reports, especially if some reports utilize preliminary data or estimates. Some data, such as complex medical examiner case conclusions, may remain pending for many months; when they are completed, the results may vary from forecasts. Other data collection methods may change over time. For example the TDS expanded the number of categories it tracked in fall, 2003. Prior to that time powder and crack cocaine were combined and specific opiates/opioids as well as benzodiazepines were not tracked individually.

The approach taken here is to focus on the total indicator pattern, that is, what all the indicators are showing. Earlier indicators tend to include poison data and death data. Treatment data tend to be late indicators because it takes time, often many years, before people seek treatment for their addictions.

Other Indicators

CESN is pursuing some indicators which have not been developed in this report, but which will be important in future analysis. These include: (1) incidence of HIV/AIDS and hepatitis C; (2) expansion of the qualitative interviews to new groups; (3) analysis of emergency room data; and (4) analysis of trends in the Prescription Monitoring Program.

HIV/AIDS

Although not tied to any particular drug category, the incidence and prevalence of blood-borne diseases provide indirect monitors of drug abuse because of their association with injection drug use (IDU). In particular, injection of heroin, opiate/opioid analgesics, cocaine, and methamphetamine abuse carry an associated risk for hepatitis and HIV/AIDS. Yet, the timing of diagnosis (and public health monitoring) may not coincide with the earliest IDU, or with the onset of disease; in fact may lag far behind.

The Bureau of Health HIV/STD Program estimates that approximately 1200 people are living with HIV/AIDS in Maine today, a third of whom may not be aware of it. Since Maine began public health surveillance in 1987, new HIV diagnoses declined during the first decade, and have been relatively stable since 1996. In 2003 there were 55 new diagnoses (6 women and 49 men), about 45% of whom progressed to AIDS within six months of the diagnosis, suggesting they had been infected much earlier. This annual total exceeds the 1997-2002 average of 42.5 new cases per year. In the mid 1990's (1993-1996) the annual average had been 77.3, and from 1987-1992 it was 121.3. Both deaths and AIDS cases peaked in the mid-1990s, partly due to available medical treatment.

In terms of mode of transmission, about 15% of new diagnoses contracted HIV/AIDS as a result of needle sharing. The percentage of all persons under 30 who were diagnosed rose from 18% to 31% in 2003. The HIV/STD Program states that the rising proportion of those under 30 is associated in part with the increase in the number of newly diagnosed persons with male-to-male (MSM) sex contact, which rose from 56% in 2002 to 69%. In 2000 the MSM component was 38% and has been rising ever since. Although Maine is 3% "non-white," the percentage of non-white persons diagnosed with HIV/AIDS in the last five years is 17%; 11% are African-Americans.

Looking just at the 36 newly diagnosed persons who contracted HIV/AIDS due to IDU since 1999, 33% are 30-39 at the time of diagnosis, 39% are 40-49, 19% are over 49, and 8% under 30. Males comprise 75% of this small subpopulation, and non-white persons comprise 6%.

Hepatitis

The most current CESN information regarding hepatitis C infection in Maine is for 2003, provided by the Bureau of Health, Division of Disease Control. Hepatitis C is

frequently transmitted through the sharing of injection drug use equipment, although it can be contracted in other ways. In 2003, the Bureau of Health received 1,020 unduplicated reports of Maine people who tested positive for one or more hepatitis C virus diagnostic markers. Of these, 31.5% were female, with an average age of 41, and 68% were male, with an average age of 44. During the same time, the Bureau received reports for seven cases of acute hepatitis C infection. Acute infection is notable because it represents recent transmission of the virus, whereas chronic infection represents persons who likely contracted the virus at some point in the distant past, possibly as long as 20-30 years ago.

Qualitative Interviews

More CESN development of qualitative interviews is planned. The interviews documented in this report constituted a pilot of the interview instruments. Depending on the issues and availability of population samples, interviews will continue to be done with some groups on a regular basis and others when special issues arise.

Emergency Room Visits

The Bureau of Health expects to have access in the future to some de-identified, aggregate hospital admission data for emergency room visits. This will enable monitoring of the frequency of drug- and alcohol-related treatment events.

Prescription Monitoring Program

In July 2004, Maine's Prescription Monitoring Program (PMP) began collecting pharmacy transactions on schedule II, III and IV controlled substances. This program was initiated as a health care tool to assist prescribers and dispensers in better serving patients. While the intent is to get those who may be addicted to drugs into drug treatment services, it will also reduce diversion and possible "doctor shopping" by patients. Detailed data on patient/client prescription history, as it relates to II, III and IV controlled substances, is available to prescribers and dispensers. Law enforcement only has access with a subpoena for an existing investigation. The PMP will soon be able to provide aggregate frequency data on pharmaceutical categories over time.

CESN Sources

Qualitative Interviews

- **CESN**-Community Epidemiology Surveillance Network, designed structured interview instrument, piloted with key informants and with clients of a homeless shelter, a needle exchange program, and persons being assessed for admission to opiate replacement programs. Instrument is under revision.
- **[CASUM]** Community Assessment of Substance Use in Maine. Heimer, R, Grau, LE, Sorg, MH, et al (2004) "Methadone Abuse and Overdose Deaths in Cumberland County, Maine" manuscript submitted for publication review.

Reported Use in the General Population

- **[BRFSS]** Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention (1995-2002) http://www.maine.gov/dhhs/bohodr/brfsspge.htm
- **[YRBS]** Youth Risk Behavior Surveillance – United States, Department of Health and Human Services, Centers for Disease Control and Prevention (1997, 2001, 2003), http://www.cdc.gov/HealthyYouth/yrbs/index.htm
- **[MTF]** Monitoring the Future, University of Michigan and National Institute on Drug Abuse (2004) http://www.monitoringthefuture.org/new.html
- **[MYDAUS]** Maine Youth Drug and Alcohol Use Survey (2002, 2004). http://www.maine.gov/maineosa/survey/home.php
- **[NSDUH]** National Survey of Drug Use and Health, Substance Abuse and Mental Health Services Administration, US Department of Health and Human Services (2002, 2003). http://oas.samhsa.gov/NHSDA/2k3NSDUH

Injury, Infectious Disease and Death

- **[BOH HIV, STD & VH]** DHHS, Bureau of Health. HIV/STD and Viral Hepatitis Program: HIV and AIDS data are from Mark Griswald; CESN data contributor.
- **[BOH HIV, STD & VH]** DHHS, Bureau of Health, HIV, STD and Viral Hepatitis Program: Hepatitis C (HCV) data are from Mary Kate Appicelli; CESN data contributor.
- **[NNEPC-ME]** Northern New England Poison Center, Maine data. CESN data contributor.
- **[OCME]** Office of Chief Medical Examiner. CESN data contributor.
- **[OCME-reference]** Office of Chief Medical Examiner: Sorg, MH and Greenwald, M (2002) "Maine Drug-Related Mortality Patterns: 1997-2002" Maine Office of the Attorney General and Maine Office of Substance Abuse.
- **[MCSPC-RDARP]** Rural Drug and Alcohol Research Program, Margaret Chase Smith Policy Center, University of Maine. Sorg, MH (2004) "Maine Drug-

Related Mortality Patterns: Update Covering Medical Examiner Cases January-December, 2002."

- **[MCSPC-RDARP]** Rural Drug and Alcohol Research Program, Margaret Chase Smith Policy Center, University of Maine. Sorg, MH (2004) "Maine Drug-Related Mortality Patterns: Preliminary Report on Medical Examiner Cases January-December, 2003."

Substance Abuse Treatment

- **[TDS]** Treatment Data System, Maine Office of Substance Abuse. CESN data contributor.

Drug Trafficking: Arrests, Seizures, and Prosecutions

- **[AG]** Department of Attorney General. CESN data contributor.
- **[AG-]** Department of Attorney General, Multi-Jurisdictional Drug Prosecution Support Program, "FY2003-2004 Annual Report" (2003-2004).
- **[MDEA]** Maine Drug Enforcement Agency. CESN data contributor.
- **[MDEA-reference]** Maine Drug Enforcement Agency, Department of Public Safety,. "Fiscal Year 2003 Annual Report" (2002-2003).
- **[NE HIDTA]** New England High Intensity Drug Trafficking Area. "New England HIDTA Threat Assessment Fiscal Year 2004" (2003-2004) Methuen, MA.
- **[HETL]** Health and Environmental Testing Laboratory. CESN data contributor.
- **[NDIC-reference]** National Drug Intelligence Center, US Department of Justice (2003) "Maine Drug Threat Assessment Update: August 2003."
- **[NDIC-reference]** National Drug Intelligence Center, US Department of Justice (November, 2004) "Pharmaceuticals Drug Threat Assessment"
- **[ONDCP ME]** Office of National Drug Control Policy, Drug Policy Information Clearinghouse, "State of Maine Profile of Drug Indicators May 2004."

Other Sources

- **[DASIS]** Drug and Alcohol Services Information System. Substance Abuse and Mental Health Services Administration, US Department of Health and Human Services (1992-2002) http://oas.samhsa.gov/dasis.htm
- **[OSA-reference]** Office of Substance Abuse (2004) "The Economic Costs of Alcohol and Drug Abuse in Maine 2000." http://www.maine.gov/dhhs/bds/osa/

Drug Category Reports

Methamphetamine and Amphetamine

Summary

Methamphetamine ("ice," "crystal," "crank," "meth") is a highly addictive central nervous system stimulant. Statistics about methamphetamine abuse often combine methamphetamine (generally illicitly manufactured as crystals or powder) with amphetamine (generally diverted pharmaceuticals) including methylphenidate (such as Concerta and Ritalin).

Methamphetamine abuse has increased nationally in both prevalence and geographic scope, spreading generally from west to east. Although rates of abuse in Maine have remained low in absolute numbers, the potential for illicit manufacturing in remote and rural areas is large. Recent increases in the last year in Maine arrests (4 to 12 from FY2003-2004) and treatment admissions (19 to 39 from FY2003-2004), as well as poisoning exposures due to abuse or withdrawal (2 to 7 from calendar year 2003-2004), combined with some qualitative interview data noting increased supply, suggests the methamphetamine problem is growing in the state. The methamphetamine-abusing treatment population is more often male (59%), and more often younger (teens and twenties), with use beginning in the mid-teens (mean 16). The treatment population frequently (72%) reports additional drug abuse problems, mostly marijuana (24%), alcohol (17%), and cocaine (14%). A recent arrest and seizure included three pounds of powder being transported by commercial truck. Six arrests during the past year were made for small lab manufacture of methamphetamine.

Diverted pharmaceutical amphetamine, including trade names Ritalin and Concerta, are an important part of Maine stimulant abuse patterns.

Qualitative Interviews

Needle Exchange, Homeless Shelter, and Opiate Treatment Clients (Summer, 2004)

Limited data are available from interviews with persons in either the needle exchange program or the homeless shelter in Portland, as well as persons going through the intake process in the opiate treatment programs during the summer of 2004.

Data from interviews of 42 homeless persons, those in the needle exchange program in Portland, and those undergoing intake assessments for opiate replacement therapy during the summer of 2004 indicate that methamphetamine/amphetamine is easier to get (42%, 8 out of 19 responding) than it was six months ago, or about the same (37%, 7 out of 19 responding); 21% (4 out of 19 responding) said it was harder to get. Questions about stimulants generally (amphetamines and methamphetamine) indicate people of all ages use these, but that most are young, 18-25. One person referred to these stimulants as "poor man's cocaine." Two respondents indicated there was a new supply source, but that it was not particularly prevalent. Again, grouping amphetamine and methamphetamine, respondents were asked about common route of administration, and

35 answered as follows: 40% snort; 23% swallow; 20% inject; 11% smoke; 3% "small amounts;" 3% don't know.

When asked what specific methamphetamine or amphetamine substances respondents were aware of "on the streets," the following were selected by the ten respondents to this question: Ritalin (six), Adderal (five), Concerta (one), speed (one), crystal (two), and amphetamine pills (one).

Of the three key informants interviewed, (one from law enforcement; two doing intakes at opiate treatment provider organizations) two indicated methamphetamine was easier to get now than before; the third person said it was harder.

Reported Use in the General Population

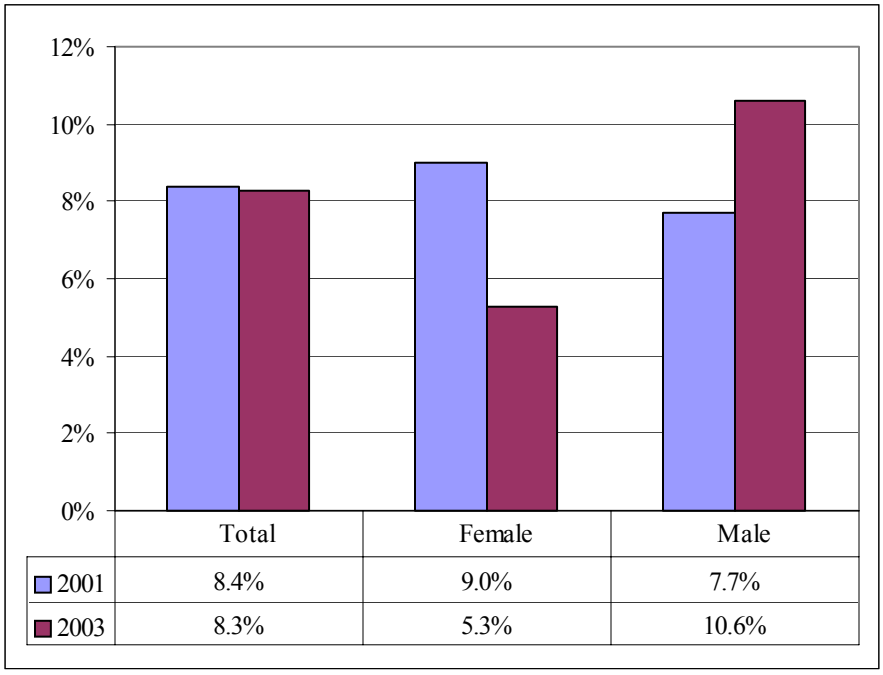
National Survey NSDUH (2002, 2003) and DASIS (1992-2002)

According to the 2003 National Survey of Drug Use and Health (NSDUH, 2002, http://oas.samhsa.gov/NHSDA/2k3NSDUH), 5.7% of the respondents 12 years of age and older had tried methamphetamine, with the majority of past-year users between 18 and 34 years of age. Between the 2002 and 2003 surveys, lifetime use rates did not change, and neither did the rates for the past year (0.4%) or the past month (0.2%). Use of stimulants generally decreased slightly between 2002 and 2003 for lifetime (9.3% to 9.0%), for past year (0.8% to 0.6%), and for past month (0.4% to 0.3%). The rate of non-medical methamphetamine use (overall past year use) among youth 12-17 decreased from 0.9 % to 0.7%. The Drug and Alcohol Services Information System (DASIS, http://oas.samhsa.gov/2k4/methTX/methTX.htm) report for 1992-2002 notes an increase in primary admissions during this time from 10 to 52 per 100,000, to 7% of admissions in 2002, although the increase was nearly double the national rate in some states (mostly western). Smoking had by 2002 become the most prevalent route of administration, used by 50% of patients.

National Survey among Youth -YRBS (2001, 2003)

This biannual survey, which was started in 1991, targets students in grades 9-12 in public and private schools (http://www.cdc.gov/HealthyYouth/yrbs/index.htm). It was conducted from February through December, 2003 to measure health risk factors, including alcohol and drug use. Approximately 8% of youth in the general population report use of methamphetamine in their lifetime, according to the YRBS national survey (Figure 1); female rates have dropped slightly and male rates have increased.

Figure 1. YRBS 2001, 2003: Percent Any Lifetime Use Methamphetamine



	Total	Female	Male
2001	8.4%	9.0%	7.7%
2003	8.3%	5.3%	10.6%

Maine Youth Drug and Alcohol Use Survey (MYDAUS), 2002, 2004

The percent of youth reporting any lifetime use of stimulants in 2004 increases steadily between 6th and 11th grades, from 0.7% to 6.5%, then increases sharply in 12th grade to 14.3% (Figure 2). There is a dramatic increase between 2002 and 2004 amongst 12th graders, from 7.2% to 14.3%.

Accidental Injury and Death

Poisoning Exposures -Northern New England Poison Center, Maine Data

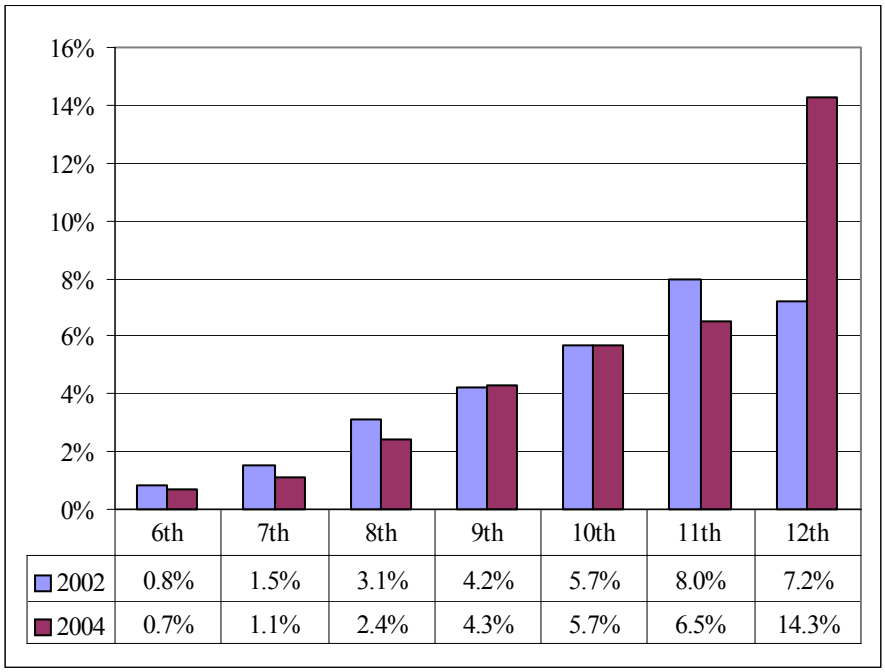
Trend data for exposures (due to abuse/withdrawal) and information calls for methamphetamine during the last three calendar years are shown on Figure 3, and show some increase, but the numbers are too small to interpret reliably.

During the same period calendar years 2002-2004 there were 432 poisoning exposure mentions *for all reasons* (174 in 2004) and 1,295 information call mentions (587 in 2004) for the prescription amphetamines. These include mostly methylphenidate, with the trade names of Ritalin and Concerta, and some others. Trend data for amphetamines will be added in subsequent reports.

Deaths – Maine Office of Chief Medical Examiner

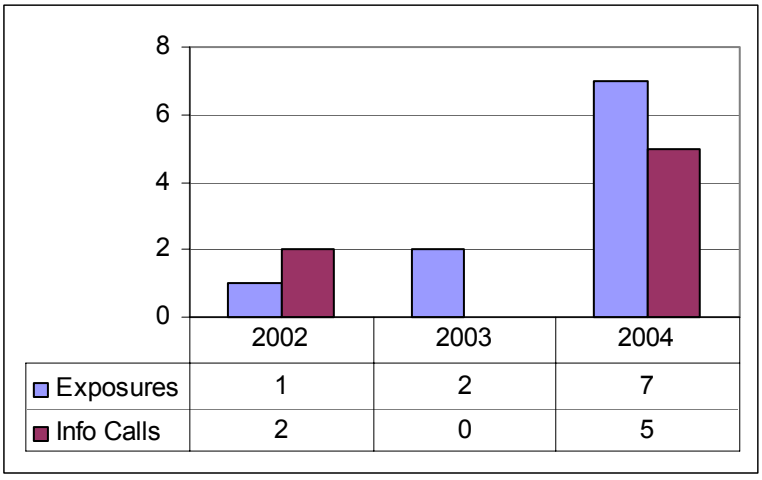
During the period from 1997-2004, there were two accidental deaths caused by amphetamine, one in 1997 and one in 2001. There has been only one accidental death during this period caused by methamphetamine, in 2004.

Figure 2. MYDAUS 2002, 2004: Percent of 6th through 12th Graders Reporting Any Lifetime Stimulants Use



	6th	7th	8th	9th	10th	11th	12th
2002	0.8%	1.5%	3.1%	4.2%	5.7%	8.0%	7.2%
2004	0.7%	1.1%	2.4%	4.3%	5.7%	6.5%	14.3%

Figure 3. NNEPC-ME Calendar Year 2002-2004: Poisoning Exposures due to Abuse or Withdrawal and Calls, Methamphetamine



	2002	2003	2004
Exposures	1	2	7
Info Calls	2	0	5

Substance Abuse Treatment

Treatment Data (TDS) – Methamphetamines, Amphetamines and Other Stimulants, 1995-2004

The number of unduplicated clients admitted for methamphetamines as a primary problem in Maine FY1995-2004 reached a high of 26 in 2000, dropped in 2001 to 17 and has risen 129% since 2001 (see Figure 4). Amphetamine admissions rose steadily FY1995-1999, then have see-sawed since then. Stimulant admissions (methamphetamine and amphetamine combined) have been increasing during the past two years.

Nationally, the DASIS 2002 report notes the rate per 100,000 of methamphetamine/amphetamine (combined) primary admissions increased from 1.5% in 1992 to 3.5% in 2002 in Maine. Regionally, New Hampshire also has increased (from 1.5 to7.0 per 100,000), but not Vermont or Massachusetts. National figures are not available for the last two years.

The Maine profile of stimulant abusers is that of a young male in his mid 20's who has been using for a decade, is employed, unmarried, and at risk for legal involvement. About one-third are unemployed, and 6-10% are homeless. The profiles for amphetamine and methamphetamine abusers are similar. Specifically, of recent (2003-2004) TDS admissions for methamphetamine as a primary problem, the mean age is 26, 59% are male, and 64% are never married. The mean age reported for first use is 16, 34% are unemployed, 9% are homeless, and 54% report legal involvement. For amphetamines as a primary problem, the mean age is 24, 59% are male, and 81% are never married. The mean age reported for first use is 16, 34% are unemployed, 6% are homeless, and 47% report legal involvement. The DASIS 2002 report shows national statistics at 55% male and the mean age of admission at 31.

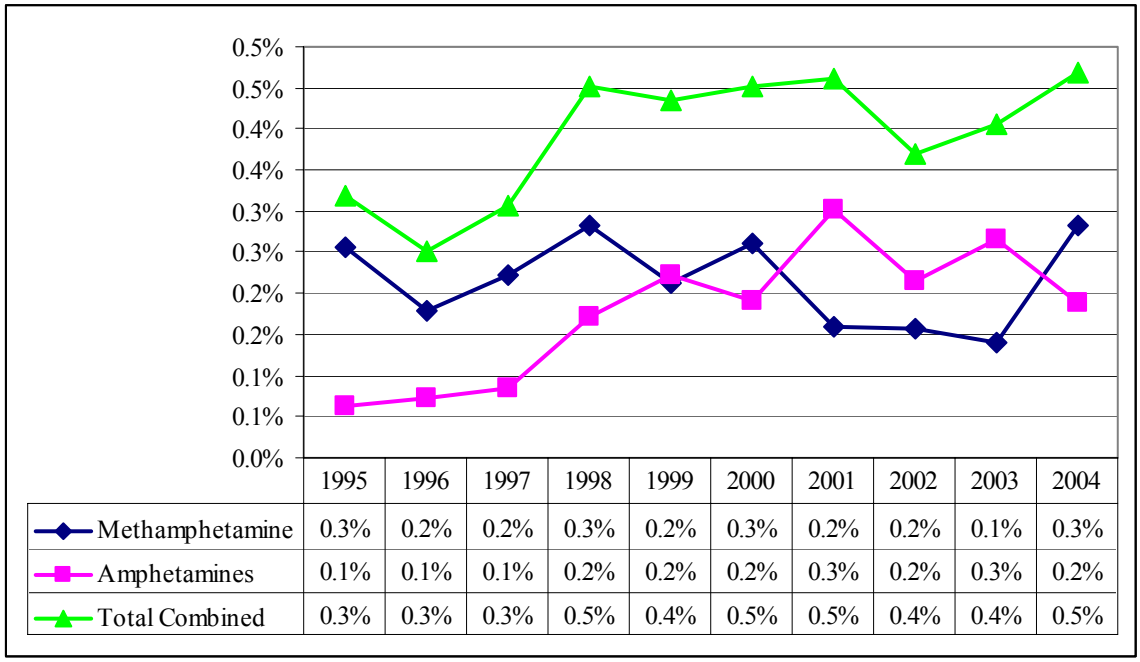
Of the 2003 and 2004 admissions for a primary problem of methamphetamine abuse (N=39), 72% reported other drugs as secondary or tertiary problems. Co-occurring problem drugs associated with methamphetamine were: marijuana (24%); alcohol (17%); cocaine (14%); opiates/opioids (analgesics or heroin) (8%); and benzodiazepines (3%).

The patterns for route of administration for the fiscal years 2003-2004 admissions emphasize inhalation (38%), with smoking (23%) second, and injection (18%) third (Figure 5).

Table 1. TDS FY 1995-2004 Number of Unduplicated Clients Admitted for Primary Problem of Methamphetamine and Amphetamine Abuse

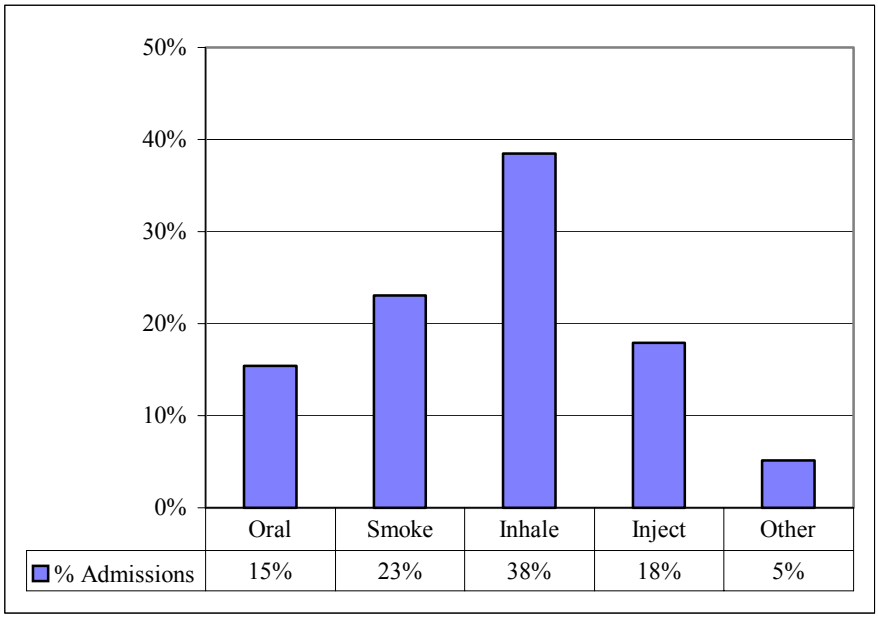
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Methamphetamine	24	17	21	28	21	26	17	19	19	39
Amphetamines	6	7	8	17	22	19	32	26	36	26
Total Combined	30	24	29	45	43	45	49	45	55	65

Figure 4. TDS FY 1995-2004: Percent of Unduplicated Clients Admitted for Primary Problem of Methamphetamine and Amphetamine Abuse (see Table 1)



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Methamphetamine	0.3%	0.2%	0.2%	0.3%	0.2%	0.3%	0.2%	0.2%	0.1%	0.3%
Amphetamines	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.3%	0.2%	0.3%	0.2%
Total Combined	0.3%	0.3%	0.3%	0.5%	0.4%	0.5%	0.5%	0.4%	0.4%	0.5%

Figure 5. TDS FY2003-2004: Route of Administration for Admissions Reporting Primary Problem with Methamphetamine



	Oral	Smoke	Inhale	Inject	Other
% Admissions	15%	23%	38%	18%	5%

Drug Trafficking: Arrests, Seizures, and Prosecutions

Maine Drug Enforcement Agency (MDEA) Arrests and Seizures, FY2000-FY2004

Arrests for methamphetamine are few in absolute number, making it difficult to interpret trends. However arrests decreased from FY2000 to FY2002 from a high of 13 in 2000 to three in FY2002 (Figure 6). Since FY2002, the number increased to four in FY2003, but then jumped to 12 in FY2004. About half of these arrests were for manufacturing in small "box labs." However, since the end of the fiscal year there was a major arrest for three pounds of product which was part of a smuggling operation using commercial trucks (July), then another small lab arrest in August, 2004.

Drug seizures identified as methamphetamine were highest in 2001, at 570. Although other years before and since are lower, it is important to note that there was an 82% increase from 2002 (49) to 2003 (89) (Figure 7).

Health and Environmental Testing Laboratory (HETL)

The Maine Health and Environmental Testing Lab tests impaired driver urines and seized drugs selected for testing by law enforcement (MDEA, sheriff, police). Of 1,076 tests done in FY2003, 23 (2%) were forms of stimulants, distributed between amphetamine (0.4%), methamphetamine (1%), methylphenidate (1%) and ephedrine (0.1%).

Department of Attorney General (AG) –Prosecutions

Over the last four years, prosecutions for methamphetamine have been rare: FY2000-01, 1.1%; FY2001-02, 1.5%; FY2002-03, 0%; and FY2003-04, 0.6%. Amphetamine pharmaceuticals are not broken out from the category "prescription drugs."

Table 2. MDEA FY2000-2004: Number of arrests

	FY2000	FY2001	FY2002	FY2003	FY2004
Number of Arrests	13	7	3	4	12

Figure 6. MDEA FY2000-2004: Percent of Methamphetamine Arrests

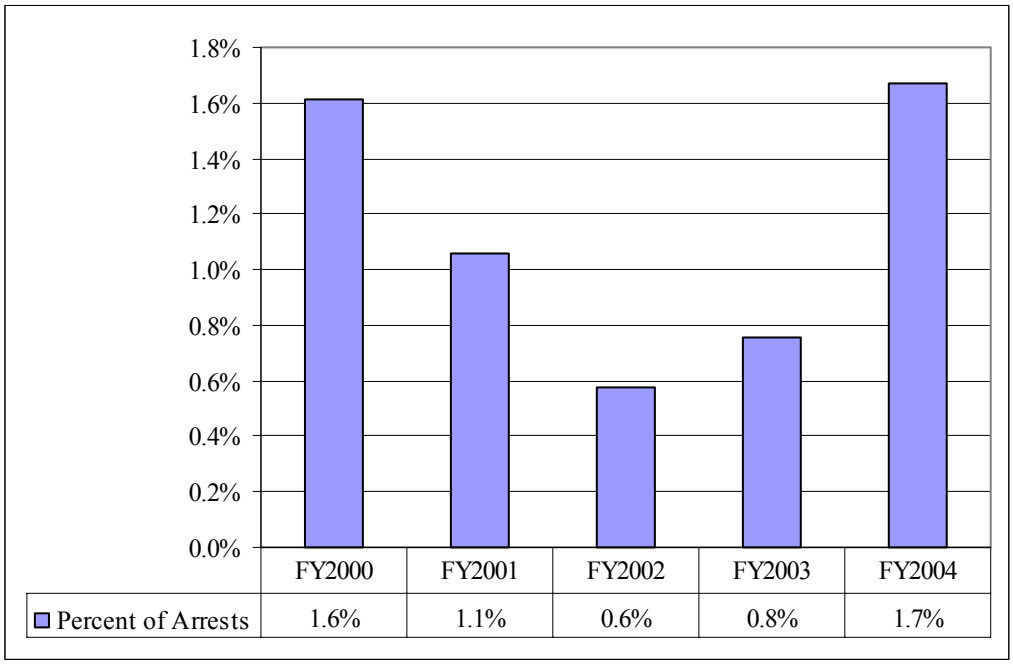
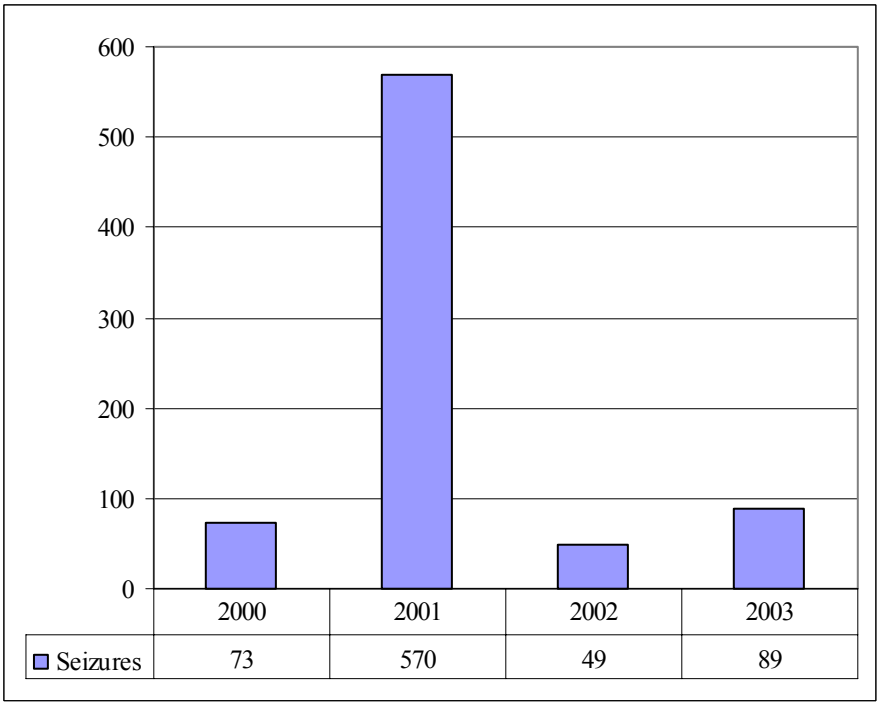


Figure 7. MDEA FY2000-2004: Methamphetamine Seizures



Cocaine

Summary

Use of both powder cocaine and crack has been increasing in Maine over the past three years across a wide range of indicators, including deaths (320% increase 2002-4), treatment (98% increase FY2002-4), arrests (91% increase in crack arrests FY2002-4, powder 37% increase), and prosecutions (91% increase in crack prosecutions 2002-4, powder 34% increase). HIDTA FY03-04 mentions an increase in crack especially south and west, and a decrease in powder. Qualitative data from summer 2004 are clear in suggesting new sources for both crack and powder; for the latter, sources in New Hampshire and Massachusetts are mentioned and an increase in quality is noted by some. Use among females has increased sharply, as indicated by prosecution data.

In TDS data for 2003-2004 route of administration varies somewhat by gender with more females smoking and injecting and more males snorting. Cocaine's role as a secondary or tertiary problem associated with many other primary substances outnumbers admissions as a primary problem. Cocaine/crack is frequently associated with secondary/tertiary problems with alcohol (30%), marijuana (18%), and analgesics (18%).

Qualitative Interviews

Needle Exchange, Homeless Shelter, and Opiate Treatment Clients (Summer, 2004)

Limited data are available from interviews of persons in either the needle exchange program or the homeless shelter in Portland, as well as persons going through the intake process in the opiate treatment programs during the summer of 2004 (Table 1). Clients were asked specifically about powder cocaine and crack. The vast majority thought the supply for both powder and crack had increased. Sources in Massachusetts (New Bedford fisherman), New Hampshire, and Boston were mentioned. Injection use was mentioned by 55% of powder respondents and 57% of crack respondents. One individual speaking about powder commented that a new use was to mix it with heroin.

Reported Use in the General Population

YRBS Data

This biannual survey, which was started in 1991, targets students in grades 9-12 in public and private schools (http://www.cdc.gov/HealthyYouth/yrbs/index.htm). It was conducted from February through December, 2003 to measure health risk factors, including alcohol and drug use. In 2003, approximately 8% of Maine youth aged 10-14 report ever using any type of cocaine, much higher among males (11%) than females (5%). Approximately 3% of youth reported using cocaine during the previous 30 days,

more among males (5%) than females (2%) (see Figure 8). The 2003 overall rates are very similar to 1997 for both lifetime and current use, having increased in 2001 and then declined. However, female lifetime and current use has declined overall since 1997 and male lifetime and current use has risen (Figure 9).

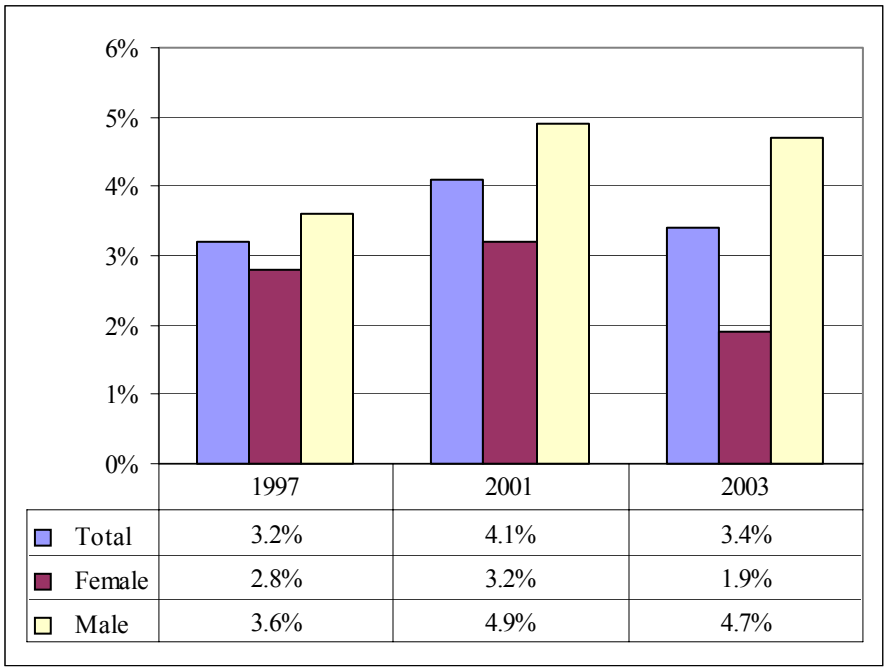
Maine Youth Drug and Alcohol Use Survey (MYDAUS), 2002, 2004

According to MYDAUS 2004, the percent of youth reporting any lifetime use of cocaine increases steadily between 6th and 12th grades from 1% to 9% (see Figures 10 and 11). More males (5.3%) than females (3.8%) report ever using cocaine. A total of 2.5% males and 1.4% females reported cocaine use in the previous 30-day period. The percent of males and females reporting current use increased from 1998 to 2002, but has held steady between 2002 and 2004.

Table 3. CESN 2004: Qualitative Interviews

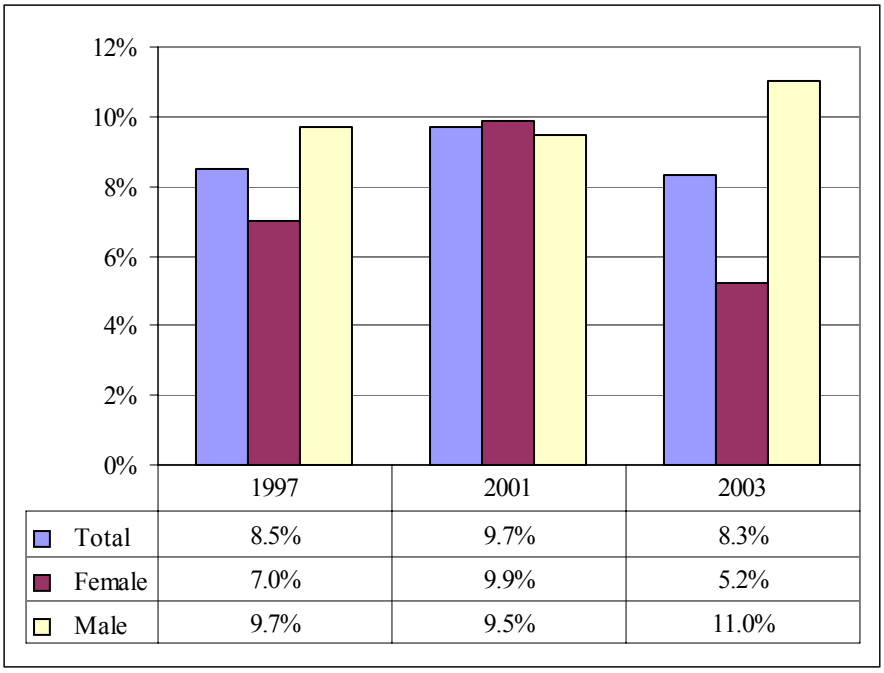
Questions **n=42 interviews**	**Cocaine (Powder and Not Specified)** **n=31 respondents**	**Crack** **n=18 respondents**
Seen/heard about this drug being available in the last 6 months (approx. Jan-August, 2004)	20 respondents mentioned "powder" 11 respondents did not provide name	15 respondents mentioned "crack"
Easier or harder to get recently, or about the same	19 who mentioned powder 8 (42%) easier 9 (50%) same 2 (13%) harder	15 who mentioned crack 9 (60%) easier 6 (40%) same 1 (7%) harder
How is it being used	20 who mentioned powder 14 (70%) smoke 11 (55%) injection 16 (80%) snort	14 who mentioned crack 13 (93%)smoke 8 (57%) injection 9 (64%) snort
Trends in use	20 who mentioned powder • 9 (45%)new supply (1 mentioned a fisherman from New Bedford MA; 1 mentioned NH and Boston; 1 mentioned Bangor) • 2 (10%) quality improved • 1 (5%) mix with heroin	15 who mentioned crack • 4 (27%) new supply

Figure 8. YRBS 1997, 2001, 2003: Percent Reporting Cocaine Use in the Previous 30 Days



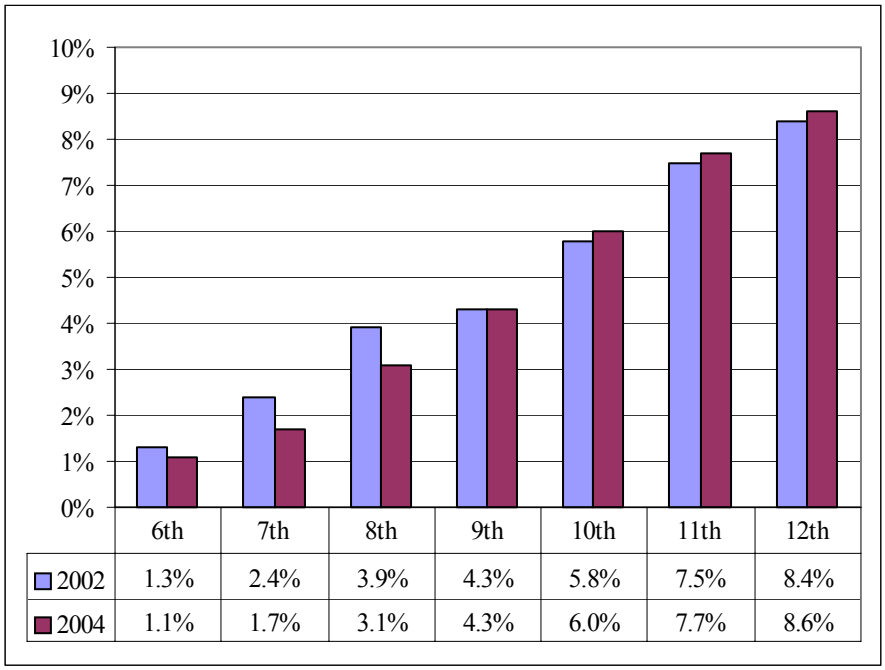
	1997	2001	2003
Total	3.2%	4.1%	3.4%
Female	2.8%	3.2%	1.9%
Male	3.6%	4.9%	4.7%

Figure 9. YRBS 1997, 2001, 2003: Percent Reporting Any Lifetime Cocaine Use



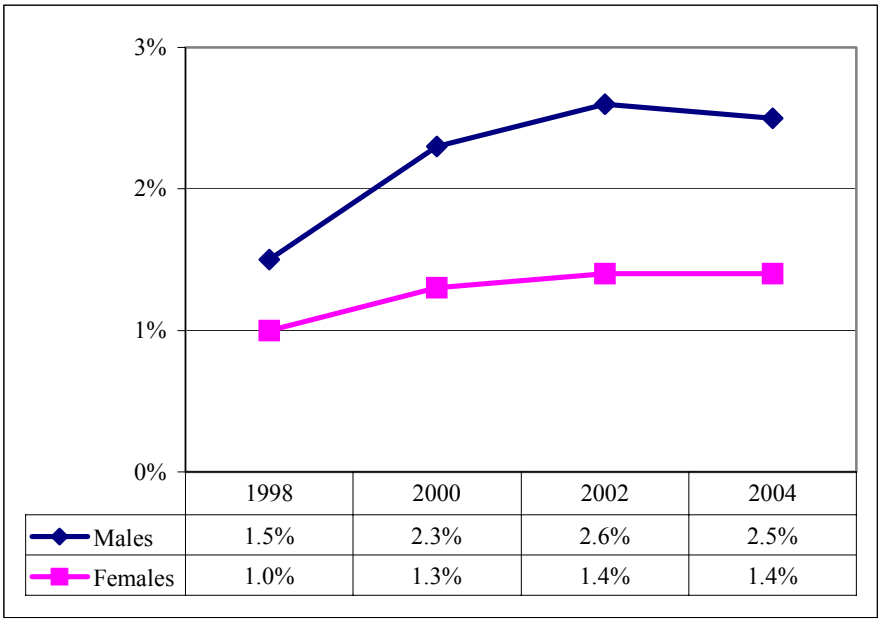
	1997	2001	2003
Total	8.5%	9.7%	8.3%
Female	7.0%	9.9%	5.2%
Male	9.7%	9.5%	11.0%

Figure 10. MYDAUS 2002, 2004: Percent of 6th through 12th Graders Reporting Any Lifetime Cocaine Use



	6th	7th	8th	9th	10th	11th	12th
2002	1.3%	2.4%	3.9%	4.3%	5.8%	7.5%	8.4%
2004	1.1%	1.7%	3.1%	4.3%	6.0%	7.7%	8.6%

Figure 11. MYDAUS 1998-2004: Percent of 6th through 12th Graders Reporting Cocaine Use in the Previous 30 Days



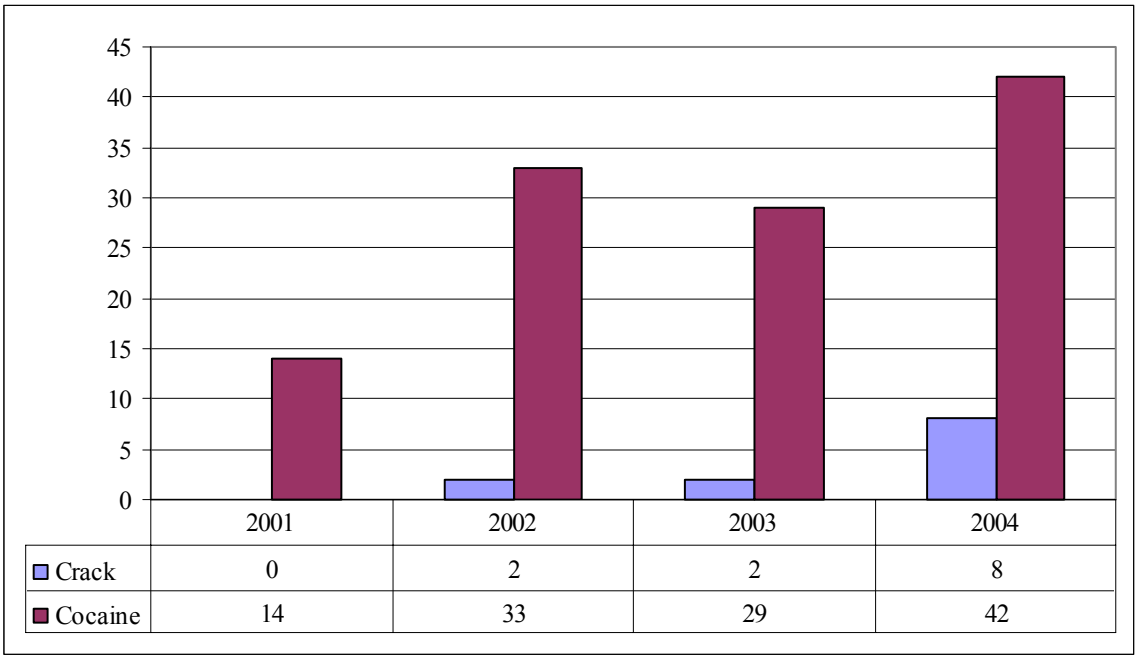
	1998	2000	2002	2004
Males	1.5%	2.3%	2.6%	2.5%
Females	1.0%	1.3%	1.4%	1.4%

Accidental Injury and Death

Poisoning Exposures –Northern New England Poison Center, Maine Data

Poisoning exposures due to abuse or withdrawal totals for both crack and powder cocaine have increased since 2001. Powder cocaine, which comprises 84% of calendar year 2004 exposures due to abuse or withdrawal, has increased from 14 in 2001 to 42 in 2004, in increase of 200%. Crack has increased from 2 to 8 from 2003 to 2004 (Figure 12).

Figure 12. NNEPC-ME Calendar Year 2001-2004: Poisoning Exposures due to Abuse or Withdrawal, Cocaine and Crack Cocaine



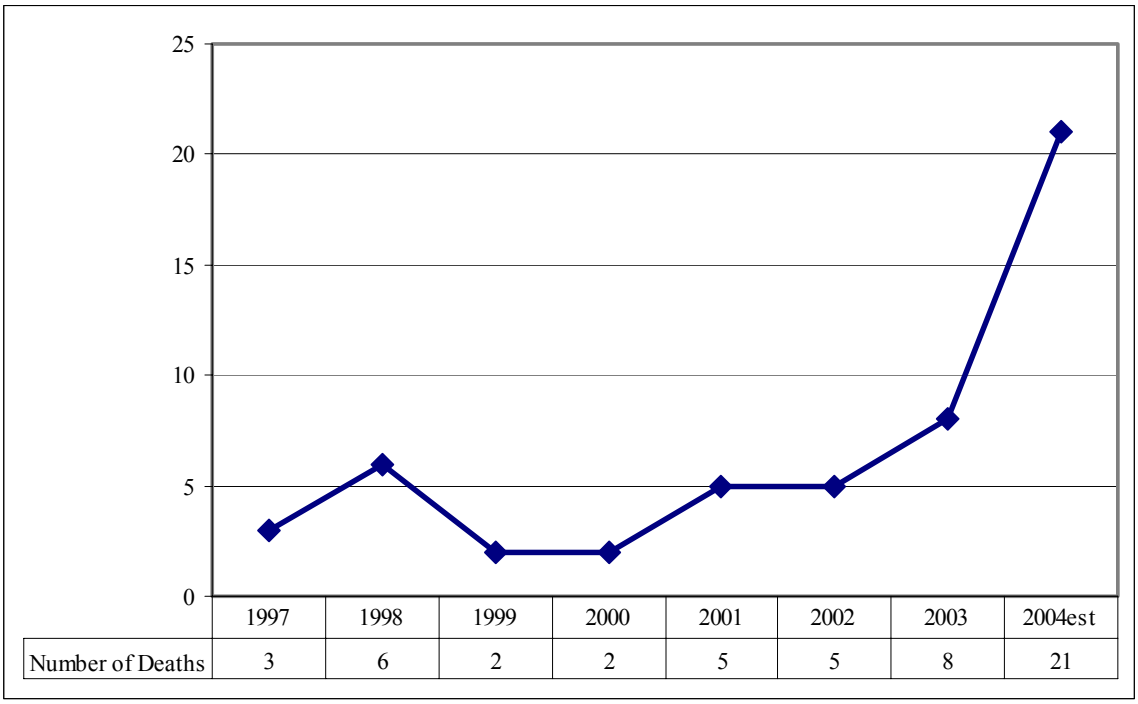
	2001	2002	2003	2004
Crack	0	2	2	8
Cocaine	14	33	29	42

Deaths –Maine Office of Chief Medical Examiner.

These findings are from the annual Maine Drug Death Update (Sorg, 2004) as well as the 1997-2002 study (Sorg & Greenwald, 2002). The estimate for 2004 is extrapolated from the January through September total.

In 2003 there were eight deaths in which cocaine is mentioned as a cause or contributing factor, 6% of all drug deaths that year; the 2004 estimate is for 21 deaths, 13% of the estimated 166 total drug deaths (Figure 13). This is more than four times the 5 deaths in both 2001 and 2002.

Figure 13. OCME 1997-2004: Number of Deaths with Cocaine Mentioned as a Cause or Contributing Factor (2004 is Estimated Based on January-September)



	1997	1998	1999	2000	2001	2002	2003	2004est
Number of Deaths	3	6	2	2	5	5	8	21

Substance Abuse Treatment

Treatment Data System (TDS) – Maine (1995-2004)

The number of unduplicated clients (clients are counted only once even if they are re-admitted during the year) admitted for cocaine/crack combined as a primary problem gradually increased from FY1995-FY2002, from 225 to 291, but increased sharply (98%) between FY2002 and FY2004, from 291 to 577 (see Figure 14).

Table 2 displays socio-demographic characteristics of persons admitted for cocaine or crack (combined) as a primary problem in calendar years 2003 and the first eight months of 2004, not unduplicated. The profile is changing. Compared to 2003 clients, those in 2004 are 7% more likely to be male, 5% more likely to be never married, 2% less likely to be unemployed, and 3% less likely to be homeless. Their mean age (31.5) remained about the same, but their age at first use increased from 19.5 to 20.4. Note the range, however; with the standard deviation in 2004 at 6.8 years, 67% of those admitted were between 13.6 and 27.2 when they began to use crack or cocaine. In admissions of all types reporting any use of cocaine in the last 30 days, 41% of males and 46% of females reported daily use.

Table 3 differentiates the socio-demographic profiles of those admitted in calendar 2003 for a primary problem with cocaine by the route of administration. The profiles are different, particularly between those who smoke and those who inhale. The latter are 16% more likely to be male, 12% more likely to be never married, 9% more

likely to be employed, but 7% more likely to be homeless, slightly younger (2%), and are likely to have started using about a year earlier at 19 ± 6.

Table 4 TDS FY1995-2004: Number of Unduplicated Clients Admitted for Primary Problem of Cocaine/Crack Abuse

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Number of Clients	211	229	224	222	221	247	267	287	454	585

Figure 8TDS FY1995-2004: Percent of Unduplicated Clients Admitted for Primary Problem of Cocaine/Crack Abuse

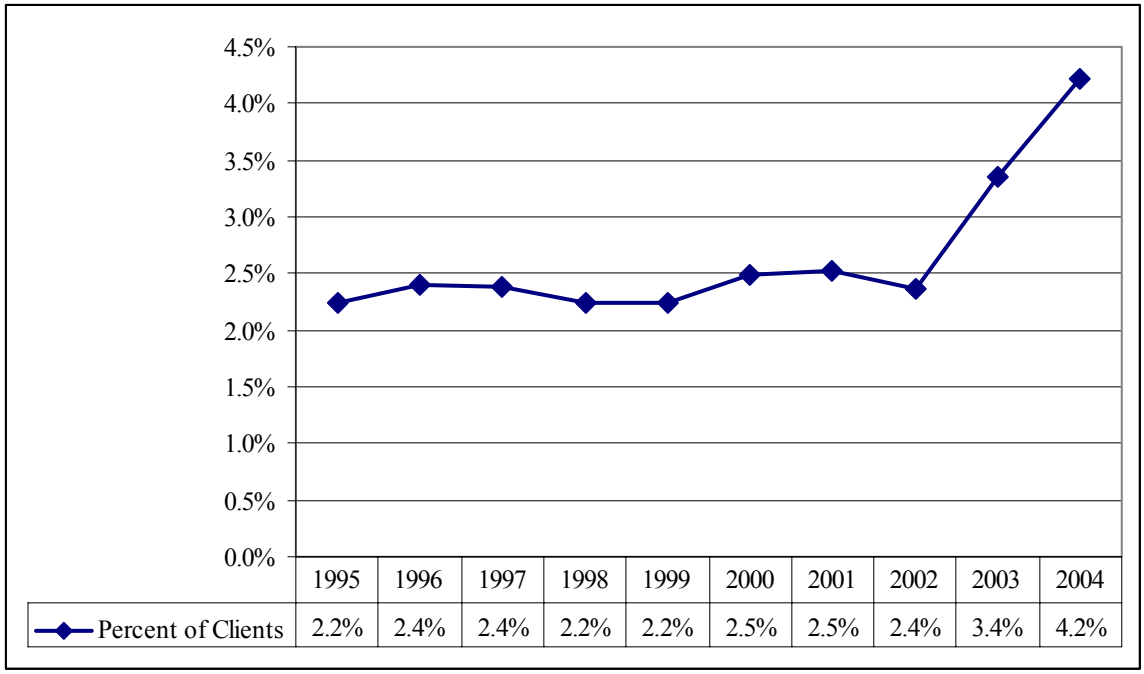


Table 5. TDS Calendar Year 2003 and January – August, 2004: Primary Admission Cocaine/Crack Socio-demographic Profiles

Admission Year	N	% Male	% Never Married	% Unemployed	% Homeless	Mean (sd) Age	Mean (sd) Age 1st Use
Cocaine & crack 2003	576	53.1	52.1	37.2	18.1	31.5(8.8)	19.5 (6.5)
Cocaine & crack 2004	670	60.0	56.6	35.5	15.5	31.4 (8.4)	20.4 (6.8)

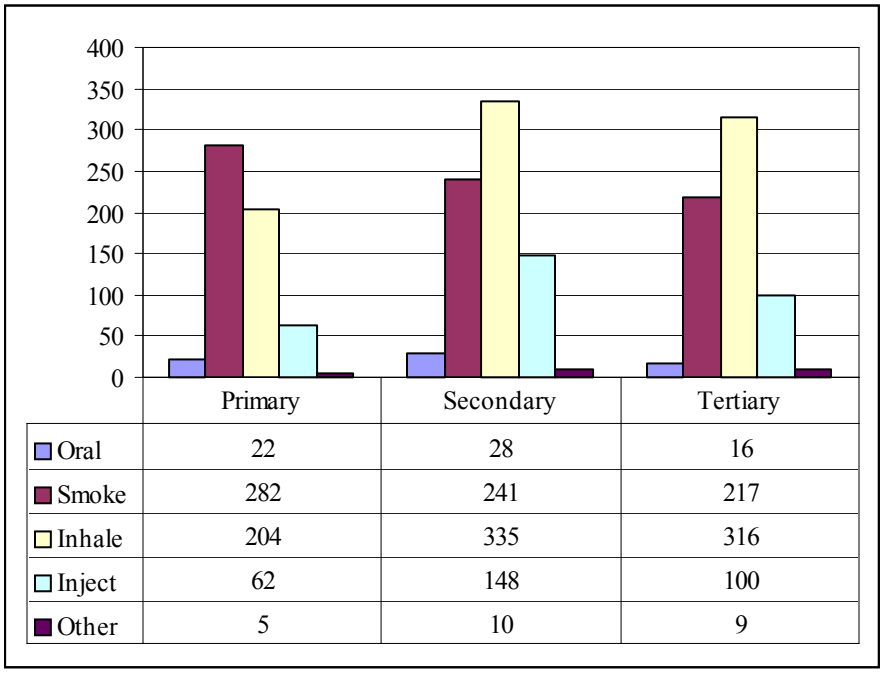
Table 6. TDS Calendar 2003: Admission Profiles for Cocaine as a Primary Problem by Route of Administration, Sample Not Unduplicated

Cocaine 2003 Route of Administration	N	% Male	% Never Married	% Unemployed	% Homeless	Mean (sd) Age	Mean (sd) Age 1st Use
Cocaine (total)	576	53.1	52.1	37.2	18.1	31.5 (8.8)	19.5 (6.5)
Oral	22	54.5	59.1	40.9	18.2	38.5 (13.9)	20.7 (10.3)
Smoked	282	46.8	44.3	41.1	14.9	32.3 (7.7)	20.0 (6.5)
Inhaled	204	62.7	55.9	32.4	22.1	30.0 (8.9)	19.0 (6.4)
Injected	62	48.4	67.7	33.9	19.4	31.1 (9.5)	19.0 (5.8)
Other route	5	60.0	100.0	40.0	20.0	22.5 (4.4)	16.6 (4.2)

In FY2003 the number and percent of unduplicated TDS admissions with cocaine/crack as a primary problem was 3%; by FY2004 it had risen to 4%. This underestimates the number with problems with cocaine, however. In calendar 2003 there were 576 primary admissions for cocaine, but an additional 491 in which cocaine was secondary, and 668 in which cocaine was tertiary. Those with cocaine/crack as a primary problem are more likely to identify smoking as their route of administration than those for whom cocaine/crack is a secondary or tertiary problem (Figure 15).

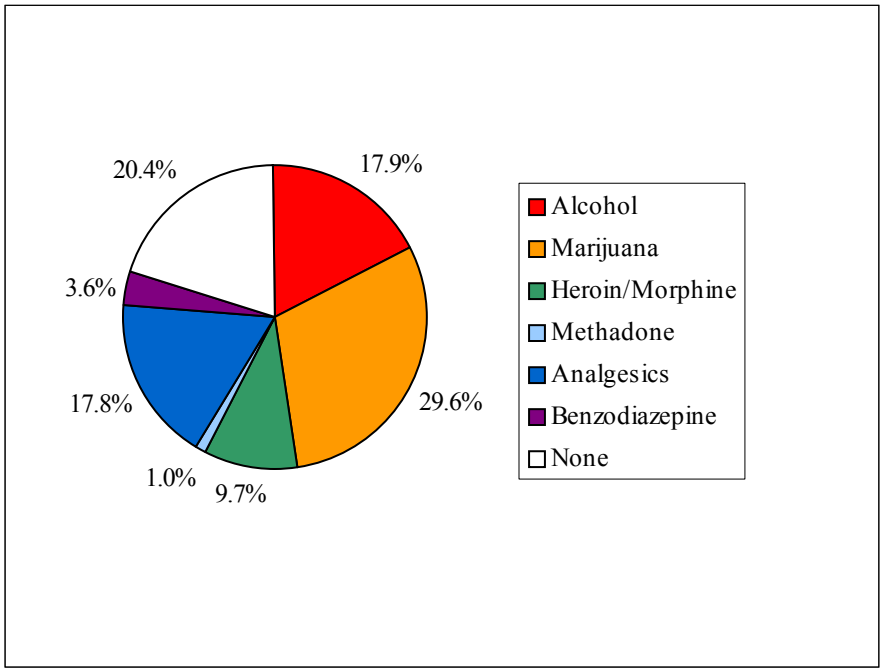
Analysis of calendar year 2004 treatment admissions (not unduplicated) with cocaine/crack as a primary problem reveals that marijuana is the most common associated secondary or tertiary problem (30%), followed by alcohol (18%) and analgesics (18%), then heroin/morphine (10%) (see Figure 16). In 2004, cocaine/crack itself shows up as a secondary or tertiary problem more often than as a primary problem, most often associated with primary admissions for methamphetamine (16%), heroin/morphine (16%), and 9% of the time with analgesics, with methadone, and with benzodiazepines; it is associated with 8% of the primary admissions for marijuana, and 4% with alcohol.

Figure 9. TDS 2004: Cocaine/crack Frequency as Primary, Secondary, or Tertiary Problem upon Admission, by Route of Administration



	Primary	Secondary	Tertiary
Oral	22	28	16
Smoke	282	241	217
Inhale	204	335	316
Inject	62	148	100
Other	5	10	9

Figure 10. TDS FY2004: Admissions with Cocaine or Crack as a Primary Problem by Associated Secondary or Tertiary Problems (Not Unduplicated) (N=670)



Drug Trafficking: Arrests, Seizures, and Prosecutions

HIDTA FY2003-04– Cocaine

Cocaine has been identified by police in New England as the number two threat (at 26%) following heroin. Levels are increasing in southern and central Maine. Lewiston and Biddeford are identified as major distribution points.

Maine Drug Enforcement Agency (MDEA)

Arrests for both cocaine and crack have increased steadily since 2001 (Figure 17). During FY2002-3, 46% of all MDEA drug-related arrests were cocaine-related, the most arrests for any drug class. Between FY2002 and FY2003, cocaine arrests rose from 88 (18%) to 121 (25%) and crack arrests from 57 (12%) to 102 (21%); the preliminary FY2004 numbers show cocaine staying at 121, but crack rising slightly to 109. There are proportionately more arrests for cocaine and crack (combined) than would be expected from the percent of Maine's population in Androscoggin County (8% of population, 36% of arrests) and Cumberland County (21% of population, 27% of arrests).

Agents comment that the distribution areas for cocaine hydrochloride and crack are about the same. Availability of both has increased, most coming from Massachusetts (Lawrence and Lowell) and New York. Dominican nationals often are involved. The price for cocaine powder is $950-$1300 per ounce in Lyman and Portland, $1400-1700 in Bangor. Crack is $50-$100 per rock depending on size. In the north distribution is connected to Canadian outlaw bikers. In the south transportation to Maine is by private vehicle (and possibly the Downeaster train). Distributors use various motel rooms and the amounts of product they bring are small. Drugs from MDEA seizures identified as crack and cocaine have increased in the past fiscal year (Figure 18). Cocaine has increased 135% and crack 120%.

Health and Environmental Testing Laboratory, HETL FY2003

The Maine Health and Environmental Testing Lab tests impaired driver urines and seized drugs selected for testing by law enforcement (MDEA, sheriff, police). Of 1,076 tests done in 2003, 421 (39%) were forms of cocaine, distributed somewhat evenly between cocaine (12%), freebase (12%) and cocaine hydrochloride (15%).

Department of Attorney General (AG) –Prosecutions

Prosecutions involving powder cocaine constitute 24% of drug prosecutions by the Office of Attorney General during FY2004 (Figure 19). This is an increase from 18% during FY2001-2, but about the same as FY2002-3. During FY2004, powder cocaine cases remained steady. Crack cocaine cases almost doubled. The proportion of female defendants in cocaine related cases has increased sharply since FY2002 (Figure 20). In FY2004, 43% of all female defendants are there due to cocaine cases, and 22% of male defendants.

Figure 17A. MDEA FY2002-FY2004 (FY2004 is Preliminary): Number of Arrests for Cocaine and Crack

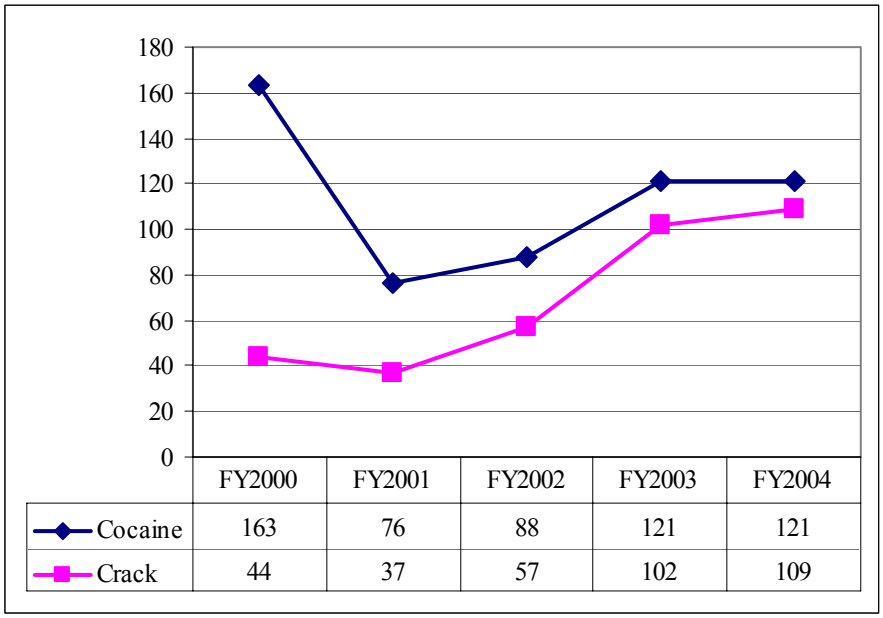


Table 7. MDEA FY2002-2004: Number of Arrests for Cocaine and Crack

	2000	2001	2002	2003	2004
Cocaine	163	76	88	121	121
Crack	44	37	57	102	109

Figure 11. MDEA FY2002-FY2004 (FY2004 is Preliminary): Percent of Arrests for Cocaine and Crack

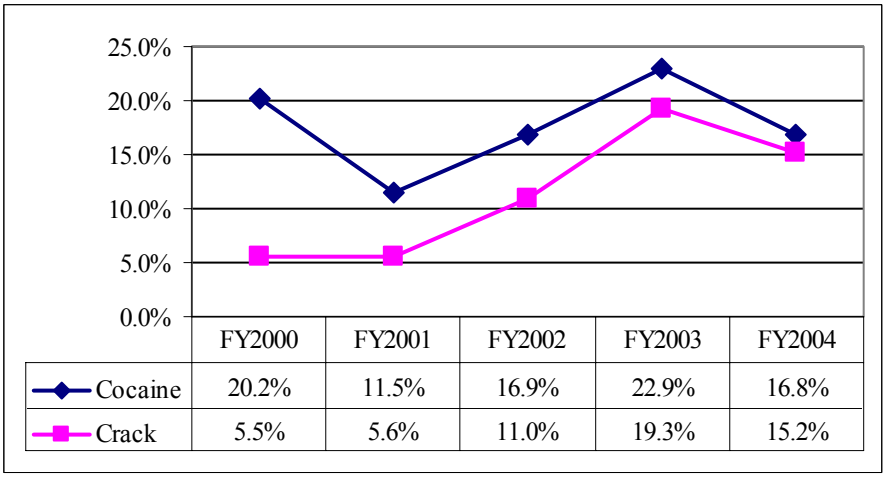
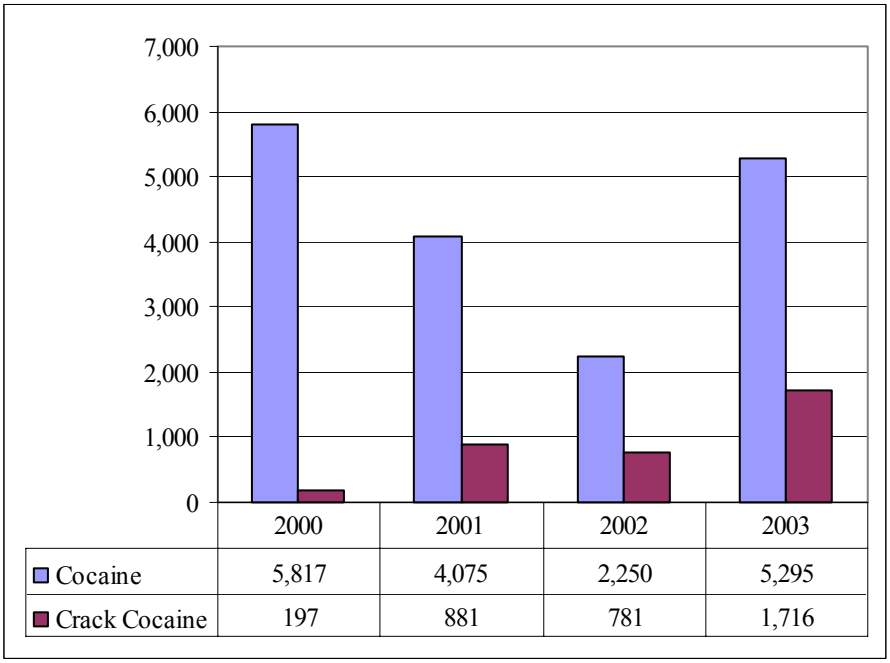
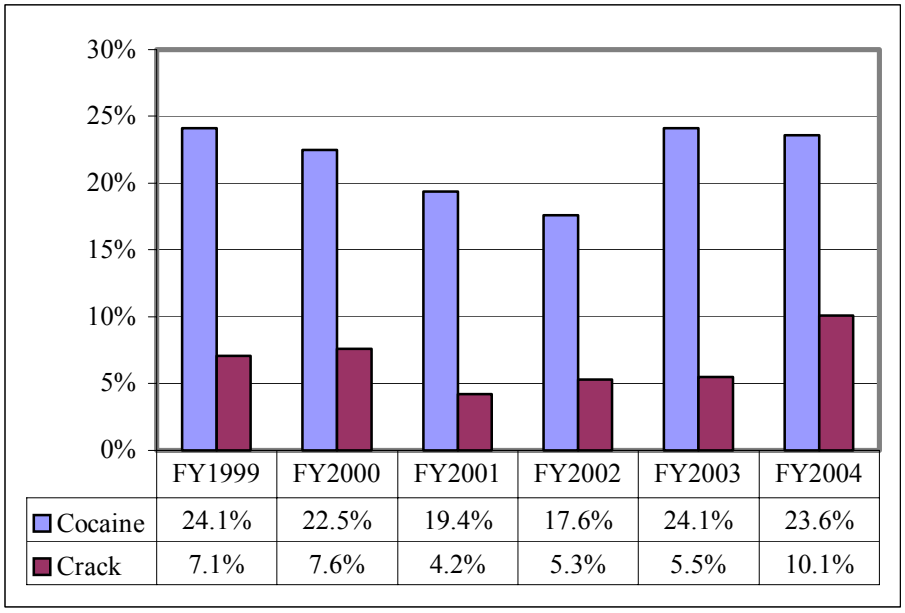


Figure 12. MDEA FY2003-2004: Seizures Identified as Crack and Cocaine



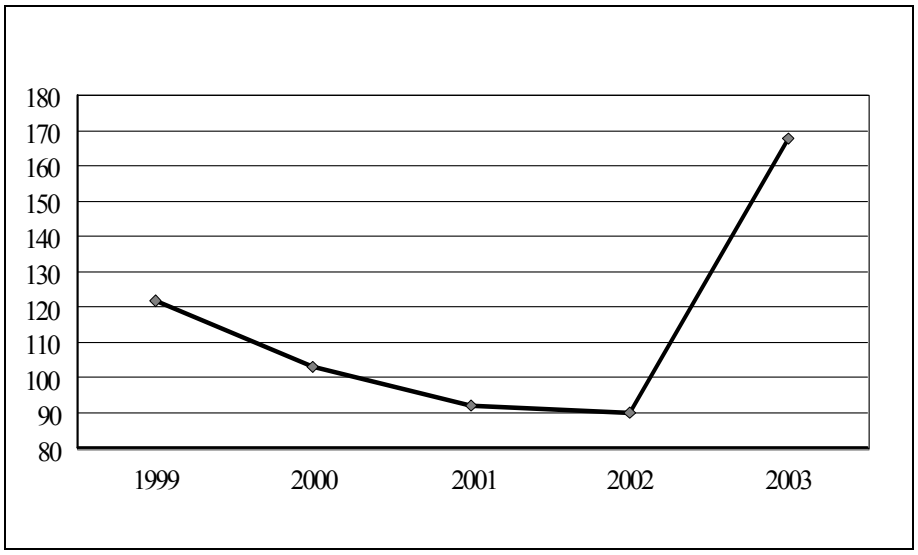
	2000	2001	2002	2003
Cocaine	5,817	4,075	2,250	5,295
Crack Cocaine	197	881	781	1,716

Figure 13. AG FY1999-2004: Prosecutions for Cocaine and Crack



	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004
Cocaine	24.1%	22.5%	19.4%	17.6%	24.1%	23.6%
Crack	7.1%	7.6%	4.2%	5.3%	5.5%	10.1%

Figure 14. AG 1999-2003: Frequency of Female Defendants in Cocaine Cases (figure from AG Annual Report FY2004)



Opiates and Opioids

Summary

Opiates include natural opium derivative preparations, (pharmaceutical) narcotic analgesics and (non-pharmaceutical) heroin. Opioids include (pharmaceutical) synthetic narcotic analgesics. Use of the terms "opiate" and "opioid" varies in the literature; each is used at times as an umbrella term incorporating the other –lumping both opium derivative and synthetic opium drugs into the same category. In this report the term "opiate/opioid" is used when combining reference to all derivative and synthetic drugs in this category. Pharmaceutical opiates and opioids are frequently abused, along with the long-abused, illicit drug heroin. Because their pharmacokinetic properties are similar, these drugs are often substituted one for the other in misuse/abuse. Thus, when examining morbidity, mortality, and associated criminal behaviors, it is best to look at the entire class of drugs as a whole.

Opiate/opioid abuse has increased dramatically in the past decade, not only in Maine, but nationally (NDIC, 2004, Pharmaceuticals). The rising misuse and abuse of pharmaceutical opiates and opioids has paralleled the development and marketing of new pharmaceutical narcotic products, such as those which provide sustained-release of the drug, and various new combinations with non-narcotic analgesics. In Maine, the pharmaceutical context has also included the opening of several methadone clinics, the recent availability of buprenorphine products, the availability of internet drug sales, changes in the Medicaid approved drugs, and prescriber behavioral changes. For example long-acting OxyContin prescriptions have leveled off since it was removed as an approved Medicaid drug, and prescriptions for methadone pills (for pain) have increased. The increase in methadone tablet prescriptions for pain mirrors a national trend. In addition, the law enforcement community has stepped up its efforts related to prescription drugs, and the state has implemented a prescription monitoring program. All of these changes are complex and interrelated, altering both supply and demand.

Heroin, along with nonmedical use of methadone and oxycodone, has continued to drive the opiate/opioid morbidity and mortality picture in Maine. Increases have occurred over the past decade in use, treatment, and deaths, as well as increases in arrests, seizures, and prosecutions. Opiate/opioid misuse and abuse usually involves an array of several drugs from which abusers choose one or several, depending on availability. Ethnographic research and qualitative interviews of the abusing population demonstrates that most drug users know the names of many opiates and opioids, and have an understanding of their similar pharmacology. Methadone, however, continues to carry higher risk due to its long-acting nature and very broad variation in individual tolerance. Ethnographic data show that drug users generally choose narcotics other than methadone, if they are available. Analysis of medical examiner files shows the increase in methadone diversion in Maine has followed the recent increase in prescribing methadone as an analgesic, usually in pill or wafer form, as well as liquid diverted from opiate treatment programs (although the latter has decreased in relative frequency). Prescription monitoring of these controlled substances in Maine is expected to reduce some sources of abuse resulting from "doctor shopping."

Qualitative Interviews

Data from interviews of 42 persons in the needle exchange program or the homeless shelter in Portland, or those going through the intake process in the opiate treatment programs during the summer of 2004, indicate that opiates and opioids are abundant in Maine, and misused in a variety of ways (Table 4).

Respondents were asked specifically about heroin, methadone, and prescription pain medication. Heroin and prescription opiates were "seen" on the street by 87-88% of respondents in the last six months, whereas methadone only by 68%. Heroin was reported by 47% as easier to get, with 44% saying about the same level of difficulty; only 9% said it was harder. The majority (53%) said prescription analgesics were easier to get and 29% the same. Methadone was seen by 52% as being about the same difficulty to get; 33%, however, said it was harder. Most respondents were able to name several prescription opiates/opioids being abused, usually by their trade names. OxyContin (72%) was the most commonly mentioned, followed by Vicodin (52%), Hydrocodone (34%), Dilaudid (31%), and Fentanyl (24%).

Trends were noted for all three categories. Heroin was seen by most as having increased supply, mainly from Boston or the midcoast area, and was reported as easier to get in the summer. Middle aged and older people were seen as new users, as well as youth. Most heroin users were said to be injecting it (88%) or snorting it (72%). Respondents noted heroin is now cheaper than before, and "cheaper than 'oxys'".

Respondents thought that about a third (38%) injected narcotic analgesics, 62% snorted them, and 9% smoked them; most (79%) simply swallowed them. New supplies of Dilaudid and "80s" (presumably OxyContin) were said to be available, especially the latter, although pills in general were getting "more expensive". Some noted getting pain pills from "old people with prescriptions." New trends of "eating the jelly" were noted by a couple respondents; one commented that there was "no taste". Misuse is said to be increasing in all groups, from teens up to middle age.

Methadone was seen by 33% as being harder to get now, and a substance of last resort which was no longer very available on the street. New supplies were reported by some respondents in the form of pain pills and from "vets." One respondent noted a new trend of injecting methadone liquid.

Reported Use in the General Population

National Survey NSDUH (2002, 2003)

According to the 2003 National Survey of Drug Use and Health (NSDUH), 2002 (33.5 million sampled) and 2003 (32.3 million sampled) (http://oas.samhsa.gov/NHSDA/2k3NSDUH), heroin use and nonmedical use of pain relievers has been increasing nationally. The NSDUH is a face-to-face sample of 68,000 persons over age 12. In 2003, 0.1% reported themselves as current heroin users, about the same as in 2002. However, from 1995 through 2002, the annual number of new heroin

users nationally rose from 121,000 to 164,000. During this period, an average of 75% were age 18 or older (thus, a quarter were 17 or younger), and an average of 63% were male. Since the mid-1990s, the prevalence of lifetime heroin use increased for both youths and young adults. From 1995 to 2002, the rate among youths aged 12 to 17 increased from 0.1 to 0.4 percent. Among young adults aged 18 to 25, the rate rose from 0.8 to 1.6 percent.

Table 8. CESN Qualitative Interviews 2004: Opiates and Opioids, Highlights Only

Questions n=42 interviews	**Heroin**	**Methadone**	**Prescription Narcotic Analgesics**
Seen/heard about this drug being available in the last 6 months (approx. Jan-August, 2004)	38 respondents 31 (88%) "yes"	31 respondents 21 (68%) "yes"	38 respondents 33 (87%) "yes" 29 provided pill names 21 (72%) oxycodone 15 (52%) vicodin 10 (34%) hydrocodone 9 (31%) dilaudid 7 (24%) fentanyl 1 (3%) tylox 1 (3%) percocet
Easier or harder to get recently, or about the same	32 respondents 15 (47%) easier 13 (44%) same	21 respondents 3 (14%) easier 11 (52%) same 7 (33%) harder	34 respondents 18 (53%) easier 10 (29%) same 6 (18%) harder
How is it being used	32 respondents 28 (88%) inject 23 (72%) snort	21 respondents 21 (100%) swallow	34 respondents 13 (38%) inject 21 (62%) snort 27 (79%) swallow
Trends in use	22 respondents • easier to get in summer • new supply from Boston, from midcoast area, from north coastal area • supply going up, cheaper • cheaper than oxy's • youth (n=13)	20 respondents • supply is less (n=9) • younger users (n=4) • new supply is pills • source: pain rx's, vets • rare use in the street • people use as last resort • new use is injecting liquid	34 respondents • teens on up • all ages • middle age & younger • new supply of '80s' on every corner • new supply of dilaudid • getting more expensive • eat the 'jelly', no taste • get from old people with prescriptions for pain

The 2003 report survey notes a significant increase in the number of persons aged 12 or older with lifetime nonmedical use of pain relievers since 2002, from 29.6 million to 31.2 million. Specific pain relievers with statistically significant increases in lifetime

use were Vicodin, Lortab, or Lorcet (from 13.1 to 15.7 million); Percocet, Percodan, or Tylox (from 9.7 to 10.8 million); Hydrocodone (from 4.5 to 5.7 million); OxyContin (from 1.9 to 2.8 million); methadone (from 0.9 to 1.2 million); and Tramadol (from 52,000 to 186,000). Pain reliever incidence increased from 1990 to 2000, when there were 2.5 million. In 2001 and 2002, there was no change in the annual number of initiates. More than half (55 %) of new users in 2002 were females, and more than half (56 %) were aged 18 or older.

National Survey Among Youth -YRBS (2003)

This biannual survey, which was started in 1991, targets students in grades 9-12 in public and private schools (http://www.cdc.gov/HealthyYouth/yrbs/index.htm). It was conducted from February through December, 2003 to measure health risk factors, including alcohol and drug use. Approximately 3% of youth in the general population report use of heroin in their lifetime, according to the YRBS 2003 national survey: 2.0% of females and 4.3% of males. Maine's numbers (in the YRBS) are nearly identical to these national statistics.

Maine Youth Drug and Alcohol Use Survey (MYDAUS) (2002, 2004)

Two percent of Maine youth report any lifetime use of heroin in 2004, down from 2.5% in 2002. One percent report any use in the last 30 days, down from 1.1% in 2002.

Accidental Injury and Death

Poisoning Exposures –Northern New England Poison Center, Maine Data

Poisoning exposure calls *due to abuse or withdrawal* for calendar year 2004 totaled 114 for opioids. (*Note the NNEPC uses the term "opioid" to include all narcotics, so that convention has been followed in the NNEPC subsections.)* Figure 21 illustrates the relative number of calls for each substance. Methadone and oxycodone each total 27 exposures, and hydrocodone totals 19. Other opioids (includes fentanyl patches-8 (7.0%), hydromorphone-1 (0.9%), suboxone-8 (7.0%), and unknown opioid-2 (1.8%)) totals 19 exposures due to abuse or withdrawal. Altogether these categories comprise 81% of all such opioid exposure calls.

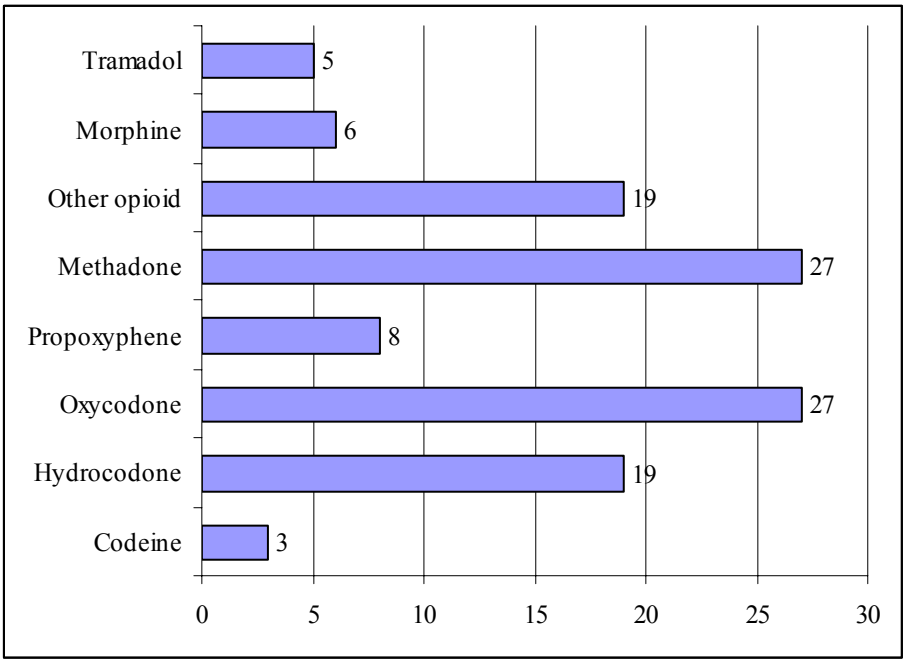
Poisoning exposure calls *for all reasons* for calendar year 2004 totaled 1,716. This would include suicide attempts and other reported medication mishaps. Of the total, 97 (5.6%) were due to suboxone, a drug newly available in Maine. The vast majority, 1,192 (69.5%) were opioid plus aspirin or NSAID preparations. Within the opioid-alone preparations, hydrocodone generated the most calls (138, 8.0%), oxycodone ranked second (113, 6.6%), and methadone ranked third (75, 4.4%)

In 2004 there were 6,798 calls for information regarding opioids, rather than exposures.

Deaths –Maine Office of Chief Medical Examiner

These findings are from the annual Maine Drug Death Update (Sorg and Greenwald, 2002; Sorg, 2004). Totals for 2003 and 2004 have not been finalized. Of the 146 drug deaths in 2003 for which there was a toxicology report, 122 (83.6%) were due to at least one narcotic (Figure 22). Of the 122 narcotic-associated deaths, 42 (34.4%) were due to single narcotics with no other drugs and 80 (65.6%) deaths were caused by narcotics in combination with other drugs. The most common combination was two or more narcotics: a total of 34 deaths, seven of which were due to a combination of three narcotics. Narcotic-benzodiazepine combinations caused 24 deaths, and narcotic-alcohol combinations caused 16. Eight deaths were due to narcotic-cocaine combinations.

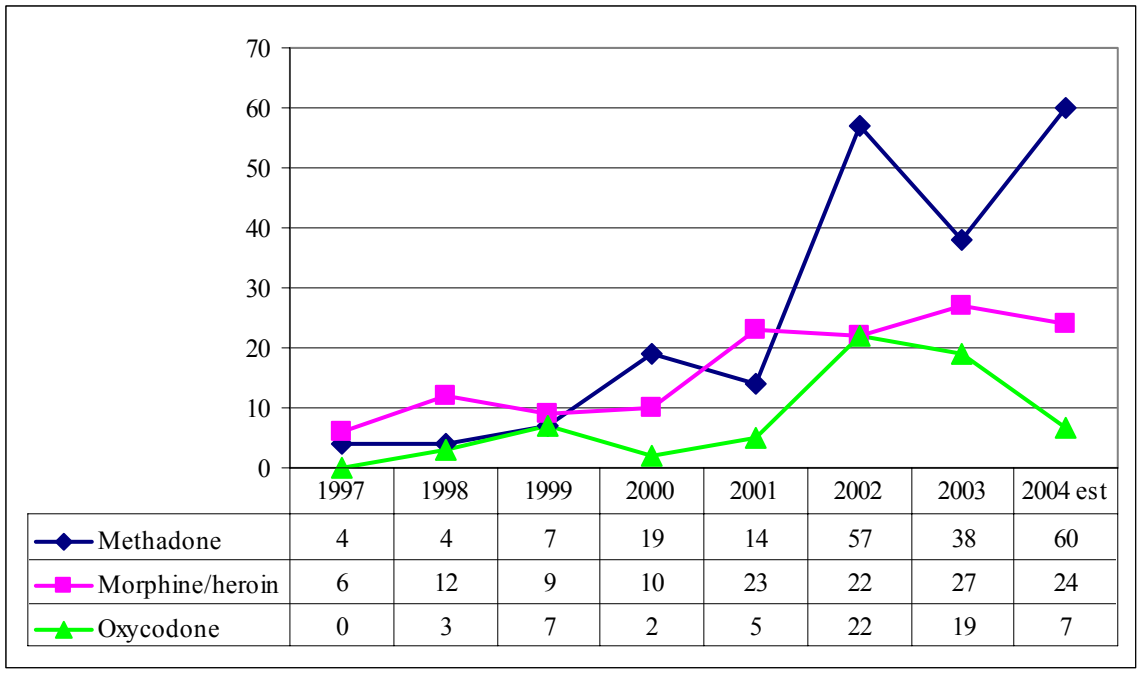
Figure 15. NNEPC-ME Calendar Year 2004: Poisoning Exposures due to Abuse or Withdrawal, Narcotics



Narcotics are the most common drug class involved in Maine's drug deaths. Figure 22 displays the trends in specific narcotics since 1997. Morphine/heroin is in second place behind methadone, increasing in 2001 and staying about the same in 2002 and 2003. Oxycodone is third, peaking in 2002, decreasing somewhat in 2003, and further in 2004. Although all of the opiates and opioids have increased since 1997, methadone has seen the largest increase, peaking in 2002 and decreasing in 2003; however, the projected total for 2004 is slightly higher than the 2002 peak. The 2003 decrease may be related to an effort to educate the public combined with policy changes regarding take-home doses at the opiate replacement clinics. However, preliminary data for 2004 suggest an increase in methadone prescriptions for pain is responsible for the rise in deaths. Figure 23 compares the trends in accidental (as opposed to suicidal) deaths and the subset of those accidental deaths that were caused by methadone, suggesting that

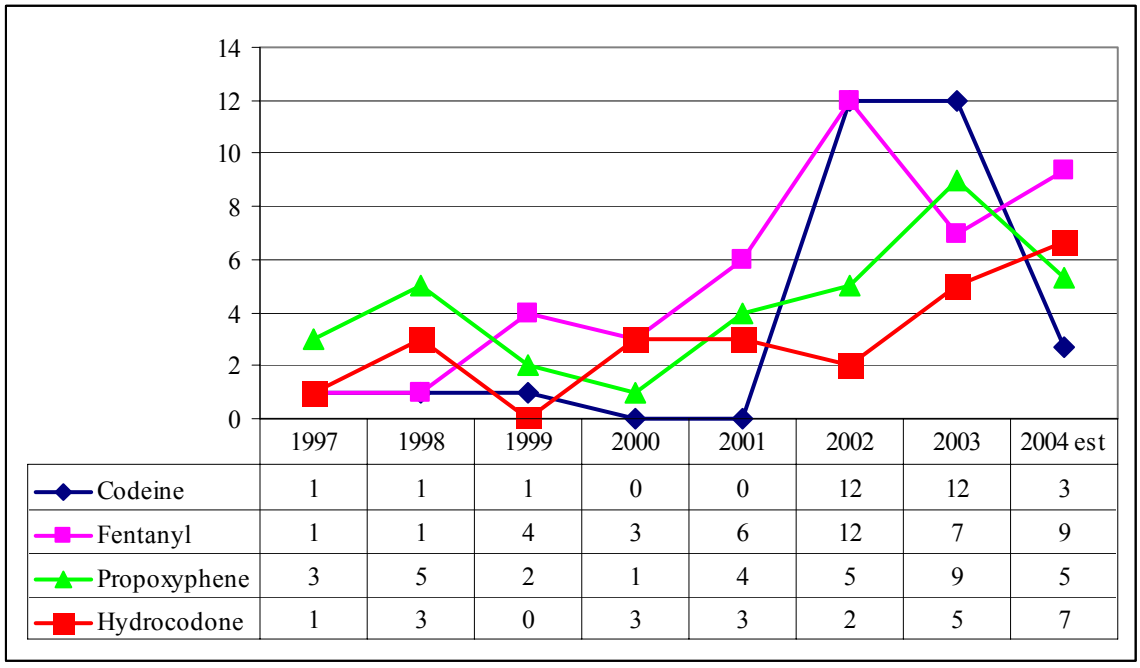
overdose death trends may be responding to broader factors than just the availability of methadone.

Figure 16. OCME 1997-2004: Narcotic-Induced Deaths, Methadone, Morphine/heroin, and Oxycodone



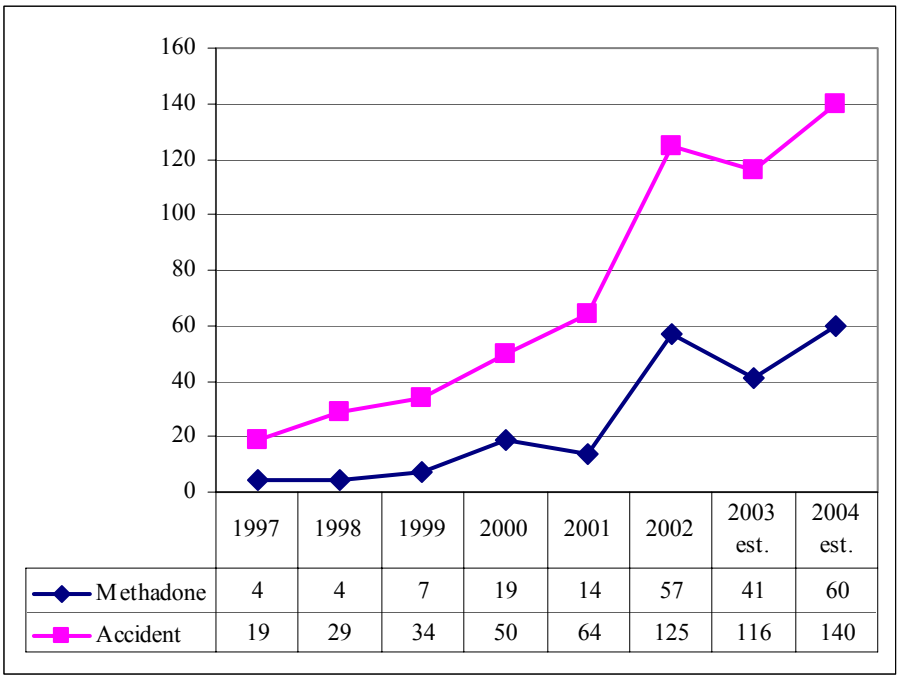
	1997	1998	1999	2000	2001	2002	2003	2004 est
Methadone	4	4	7	19	14	57	38	60
Morphine/heroin	6	12	9	10	23	22	27	24
Oxycodone	0	3	7	2	5	22	19	7

Figure 17. OCME 1997-2004: Narcotic-Induced Deaths, Fentanyl, Propoxyphene, Codeine, and Hydrocodone



	1997	1998	1999	2000	2001	2002	2003	2004 est
Codeine	1	1	1	0	0	12	12	3
Fentanyl	1	1	4	3	6	12	7	9
Propoxyphene	3	5	2	1	4	5	9	5
Hydrocodone	1	3	0	3	3	2	5	7

Figure 18. OCME 1997-2004: Number of Methadone-Induced Deaths as a Subset of the Number of Accidental Overdose Deaths



	1997	1998	1999	2000	2001	2002	2003 est.	2004 est.
Methadone	4	4	7	19	14	57	41	60
Accident	19	29	34	50	64	125	116	140

Deaths (Maine Office of Chief Medical Examiner) contrasted with Ethnographic Study of Abusers in Cumberland County, 2002 (CASUM)

It is important to note that the frequency distribution of specific drugs is related not only to their frequency of misuse, but also their relative risk. Research on 2002 Cumberland County opioid use and mortality patterns by Heimer, Grau, Sorg et al. (2004) contrast mortality patterns with ethnographic data among 237 (mis)users. They note infrequent methadone use (25% of respondents) during the previous 30 days, which contrasts with the relatively larger proportion (70%) of accidental overdose deaths caused by methadone, either alone or in combination. Abusers interviewed noted that other drugs were generally preferred over methadone. Of the Cumberland County deaths caused by methadone, 22% included mention of other opioids or alcohol as a cause of death or contributing factor. In 1997-2001, about a third (38%) of the accidental opiate/opioid overdose deaths in Cumberland County involved methadone, whereas in 2002, methadone was involved in about two-thirds (69%) of the deaths. Decedents who died as a result of methadone were significantly younger (average age 33) than those who did not (average age 39). The vast majority of the 237 abusers interviewed (93%) reported using rapidly-acting opiate/opioids or OxyContin (which is long-acting) during the previous 30 days. Most (76%) reported abusing more than one opiate/opioid. The methadone forms used included pills (55%), liquid (42%), and wafer (30%). Heroin abuse was reported by 44%. Methadone abusers were significantly more likely to be white, have stable housing, and to have been arrested in the past for a drug-related offense.

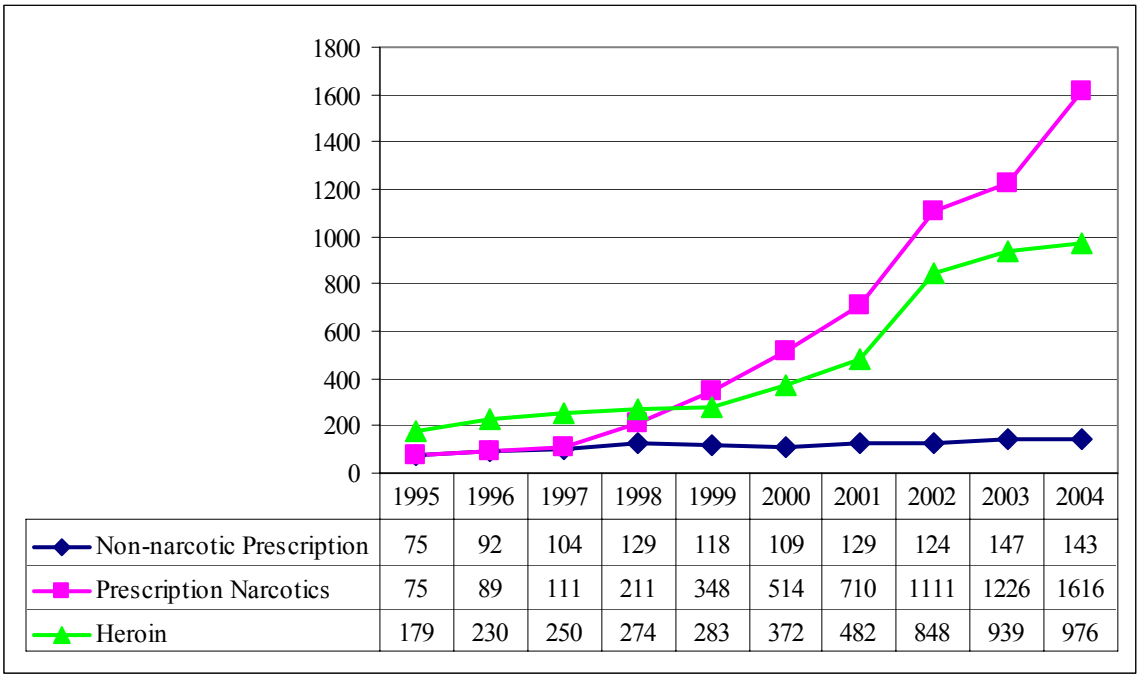
Substance Abuse Treatment

Treatment Data (TDS) –Opiates/Opioids, 1995-2004

The number of unduplicated clients admitted for dependence on opiates/opioids as a primary problem in Maine since 2000 has increased, leveling off somewhat between 2002 and 2003, then rising in 2004 (Figure 24). The volume of heroin admissions has stayed fairly level since 2002.

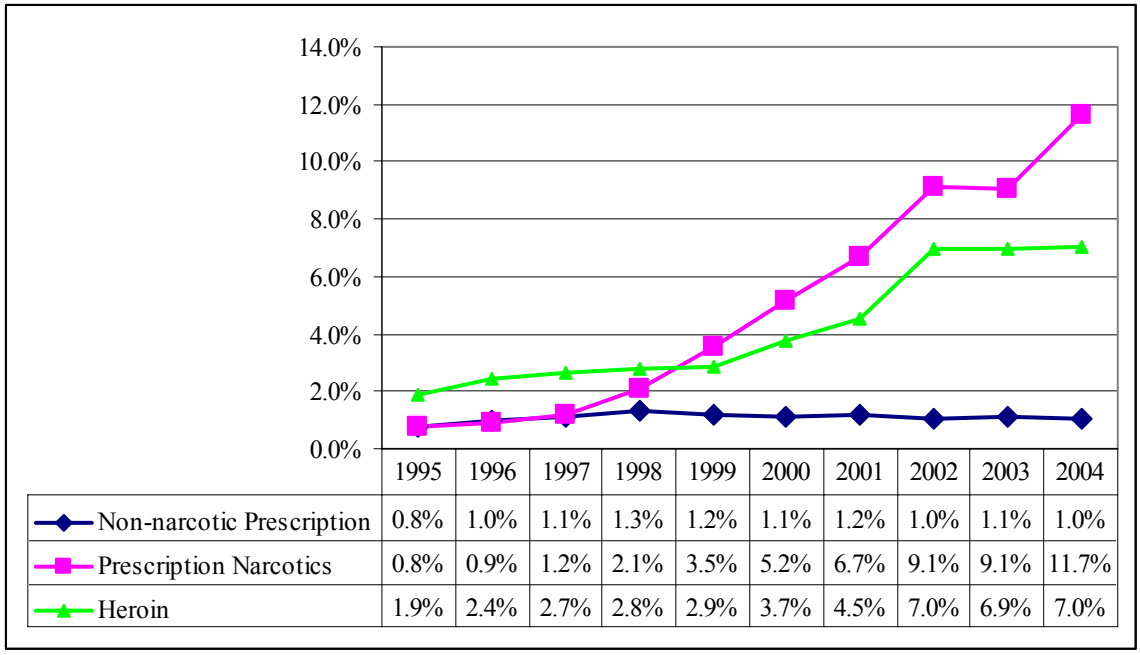
An analysis of admissions who report heroin as their primary problem in 2004 (Figure 25) reveals that 44% have a secondary or tertiary problem with a narcotic analgesic. Similarly of the admissions for primary problem with a narcotic analgesic, (Figure 26), 20% report a secondary or tertiary problem of with heroin.

Figure 19. TDS FY1995-2004: Trends in the Number of Clients Admitted for Substance Abuse Treatment for Primary Problems with Prescription Narcotics Compared with Heroin and Non-Narcotic Pharmaceuticals



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Non-narcotic Prescription	75	92	104	129	118	109	129	124	147	143
Prescription Narcotics	75	89	111	211	348	514	710	1111	1226	1616
Heroin	179	230	250	274	283	372	482	848	939	976

Figure 20. TDS FY1995-2004: Trends in the Percent of Clients Admitted for Substance Abuse Treatment for Primary Problems with Prescription Narcotics Compared with Heroin and Non-Narcotic Pharmaceuticals



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Non-narcotic Prescription	0.8%	1.0%	1.1%	1.3%	1.2%	1.1%	1.2%	1.0%	1.1%	1.0%
Prescription Narcotics	0.8%	0.9%	1.2%	2.1%	3.5%	5.2%	6.7%	9.1%	9.1%	11.7%
Heroin	1.9%	2.4%	2.7%	2.8%	2.9%	3.7%	4.5%	7.0%	6.9%	7.0%

Figure 21. TDS FY2004: Co-Occurring Problems for Treatment Admissions for Primary Problem of Heroin Addiction (N=1,234)

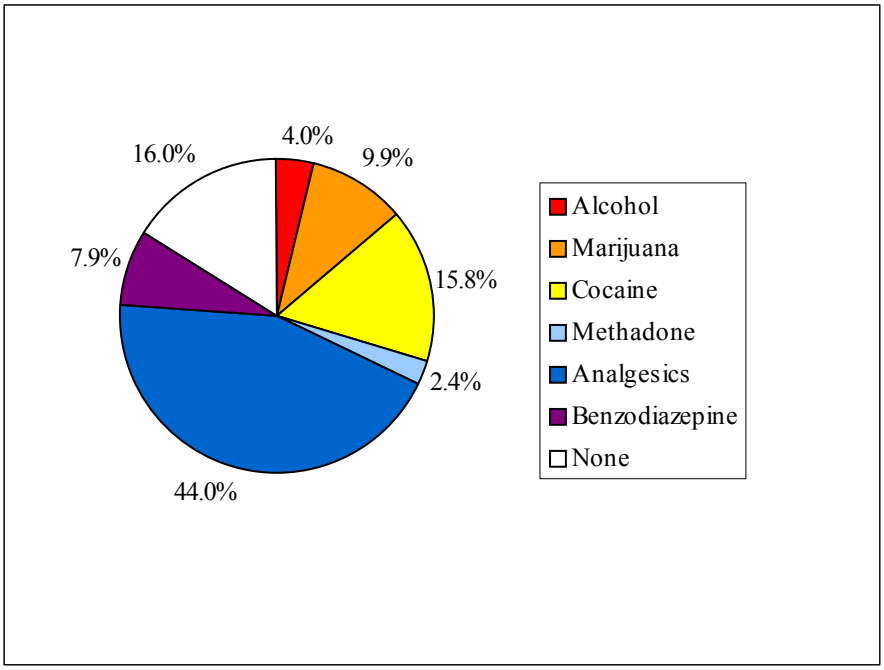
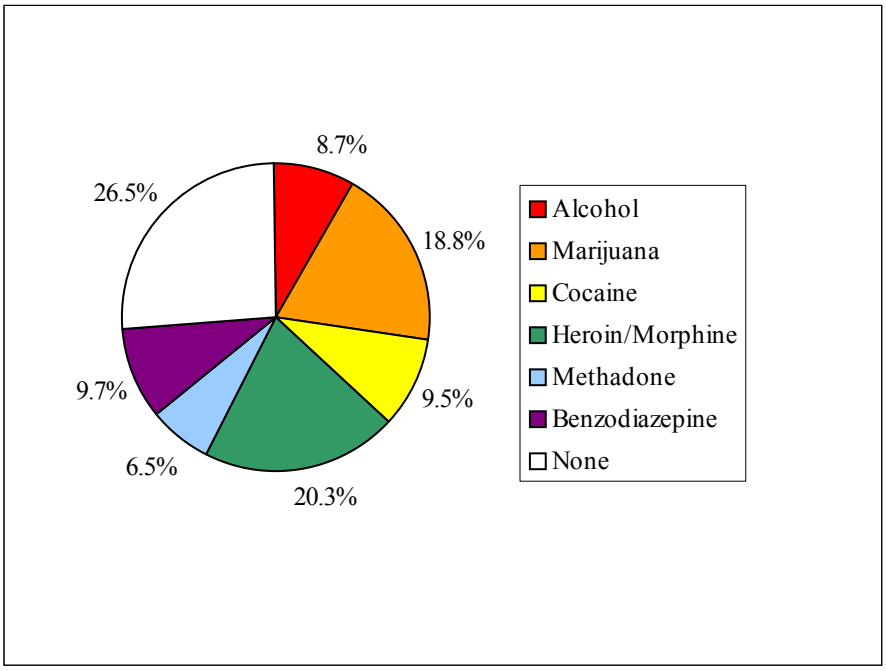


Figure 22. TDS FY2004: Co-Occurring Problems for Treatment Admissions for Primary Problem of Narcotic Analgesic Addiction (N=1,694)



Drug Trafficking: Arrests, Seizures, and Prosecutions

Maine Drug Enforcement Agency (MDEA) Arrests and Seizures, FY 2002-2004

Table 5 shows arrests and seizures during the last several years.

Table 9. MDEA Annual Report FY2000-2004, and FY2004 Arrest Database: Arrests and Seizures for Opiates and Opioids

	FY2000	FY2001	FY2002	FY2003	FY2004
Heroin arrests	70	105	98	90	108
Heroin seizures	517	1,400	3,183	335	*
Methadone pill seizures	*	*	452	1,270	*
Methadone liquid seizures	*	*	1,820	790	*

*no data

Heroin continues to be a major problem, the trafficking of which is associated with cocaine. It is widely available in Maine, especially in the central and coastal areas. Sources include the Lowell and Lawrence, Massachusetts areas, and Dominican national traffickers. The price has decreased. The purity increased during 2002 and 2003, but according to recent key informant interviews that purity is again decreasing. In the 2003 MDEA report the price is noted at about $20-$30 per bag. Seizures of heroin have gone

up 300%, along with seizures of methadone pills and liquid doses. As liquid seizures have decreased from 2002 to 2003, pill seizures have risen. The MDEA reports that local traffickers are users who are selling to support their habits. Although narcotic analgesics are not broken out amongst prescription drugs for statistics, the MDEA notes that the opiate/opioid family is the most widely abused of all prescription drug categories except marijuana. The ratio of pill to liquid methadone seizures has reversed in the past fiscal year so that pills are much more likely to be seized than liquid.

Health and Environmental Testing Laboratory (HETL): Seizures, FY 2003

Of the 1,076 seizures, 349 (32%) were in the narcotic category. Of the narcotics, 6.0% were methadone pills, 0.3% were methadone liquid, 56.7% were heroin, 2.6% were morphine tablets, 27.8% were oxycodone, 5.2% were hydrocodone, and all others (fentanyl, buproprion, tramadol, propoxyphene, and codeine) were 0.3%.

Department of Attorney General (AG) –Prosecutions

The percent of prosecutions decreased 43% from FY03 to FY04, going from 25% to 18% of total cases. The number of prescription drug cases, however, has remained stable; most of the prescription drug cases are for opiates/opioids.

Prescription Drugs

Summary

The focus of this subreport is on non-medical use of prescription drugs. These include pain medication, particularly narcotics, prescription tranquilizers, that is, benzodiazepines, and prescription amphetamines. Methadone is covered here as a pain medication as well as in the opiate/opioid section. Prescription amphetamines are covered here as well as in the report on stimulants.

Maine and the nation have experienced a dramatic increase in drug-related morbidity and mortality beginning in the mid 1990's. The greatest part of this increase has been driven by non-medical use of pharmaceuticals. In terms of sheer numbers, opiates/opioids comprise the vast majority of abused pharmaceuticals, although benzodiazepines have seen a similar upward trend. Alcohol continues to play a significant underlying role, frequently combined with multiple pharmaceuticals.

The upward trend in pharmaceutical misuse and abuse is associated with an increase in both legal and illegal supply, particularly narcotic analgesics, anxiolytics, and stimulants. The increase in supply, along with the increasing tendency to use multiple pharmaceuticals in combination, has resulted in increased risks for patients, as well as complexity for prescribers and dispensers. In Maine, a number of factors have combined to create this serious problem with prescription drug abuse, including: (a) the increase over the past decade in the range of drugs available on the market (e.g., long-acting narcotics, newer benzodiazepines); (b) the relatively new access in Maine to methadone treatment for opiate/opioid addiction; (c) fragmentation of medical care; (d) increasing prevalence of "doctor shopping;" (e) more aggressive marketing of pharmaceuticals; (f) more aggressive treatment of pain and use of methadone in palliative care; (g) reduced access to specialist medical care, resulting in the need for primary care practitioners to treat more mental health problems and chronic pain, during shorter patient visit time; (h) the increasing cultural trend to think of pharmaceuticals as a primary solution to health problems; and (i) pressure for third-party payers to include prescription drug coverage. No one of these factors is the cause, but the complex interplay of many. Effective public health responses are needed, and several have been implemented, including, for example, the creation of the Opiate Task Force, the Prescription Monitoring Program, changes in methadone therapy regulations, as well as the Community Epidemiology Surveillance Network. Maine's Prescription Monitoring Program was initiated in July, 2004, and may be an important source of aggregate data in the future.

Surveillance indicators remain very strong across the board for prescription drug misuse and abuse, as presented in this report. Misuse and abuse are an increasing source of treatment needs, law enforcement activity, and mortality in Maine. Morbidity and mortality from prescription drugs affects males and females across a broad range of ages, including adults and teens. Complexity introduced by prescriber/dispenser involvement in supply, as well as internet sales, and cross-border trafficking differs from other drug categories.

Qualitative Interviews

Needle Exchange, Homeless Shelter, and Opiate Treatment Clients (Summer, 2004)

Data from interviews of persons in either the needle exchange program or the homeless shelter in Portland, and persons going through the intake process in the opiate treatment programs during the summer of 2004 indicate that both pain medication and tranquilizers are frequently abused (Table 6). OxyContin leads all other opiate/opioid pain medications mentioned at 32%, followed by Vicodin (23%), Hydrocodone (16%), Dilaudid (14%), and Fentanyl (11%) (Figure 27). Similarly, Klonopin leads all other benzodiazepines mentioned at 40%, followed by Xanax (34%) and Valium (24%) (Figure 28).

The majority of respondents (53%) reported it was easier to get prescription pain pills compared to six months previously; 29% said it was about the same degree of difficulty as before. Benzodiazepines were reported by 45% as easier to get and the majority (52%) to be about the same degree of difficulty.

Pain medications were reported by 79% to be taken by swallowing, by 62% taken by snorting, by 38% taken by injection, and by 9% taken by smoking. By contrast, 100% of respondents reported benzodiazepines were taken by swallowing and 33% reported these drugs were taken by snorting.

Regarding pain medications, increased supplies were reported for OxyContin 80 mg and for Dilaudid. Increased cost was noted. Abusers include all age groups. A new mode of use was reported by one respondent, i.e., eating "jelly" (presumably from Fentanyl patches). Another respondent noted abusers were getting drugs from "old people with prescriptions for pain." Benzodiazepines were seen as readily available and used by "the general populations" of all ages. Valium 10 mg was mentioned as easily obtained. Sources included buying on the internet and in Rumford.

Interviews of Opioid Abusers (CASUM project, 2002)

Interviews during summer of 2002 of 237 Cumberland County opioid abusers are reported in Heimer, Givens, Sorg et al., 2004. Ninety-three percent indicated they abused OxyContin in the last 30 days and 67% said this drug was the most frequently abused in that time. (Heroin abuse was reported by 45% and most frequently used by 24 %.) Most respondents (76%) said they used more than one type of opioid. Forty-five percent reported injecting opioids and 29% had injected in the past 30 days. One quarter (26%) of respondents had used methadone in the past 30 days, but it was the least frequently abused of the drugs asked about, accounting for only 5% of the total opioid doses used in the past 30 days. Pills and wafers are used in Maine by prescribers for pain; the liquid is used for opiate treatment. The pill was the most commonly used form of methadone, consumed at some time by 55% of respondents. Liquid was second (42% of respondents) and wafers third (30% of respondents). Respondents frequently commented that they took methadone not for euphoria, but rather to stave off withdrawal symptoms.

Figure 23. CESN Client Interviews 2004: Percent of Mentions (N=57) of Prescription Narcotic Pain Medications among 27 Respondents

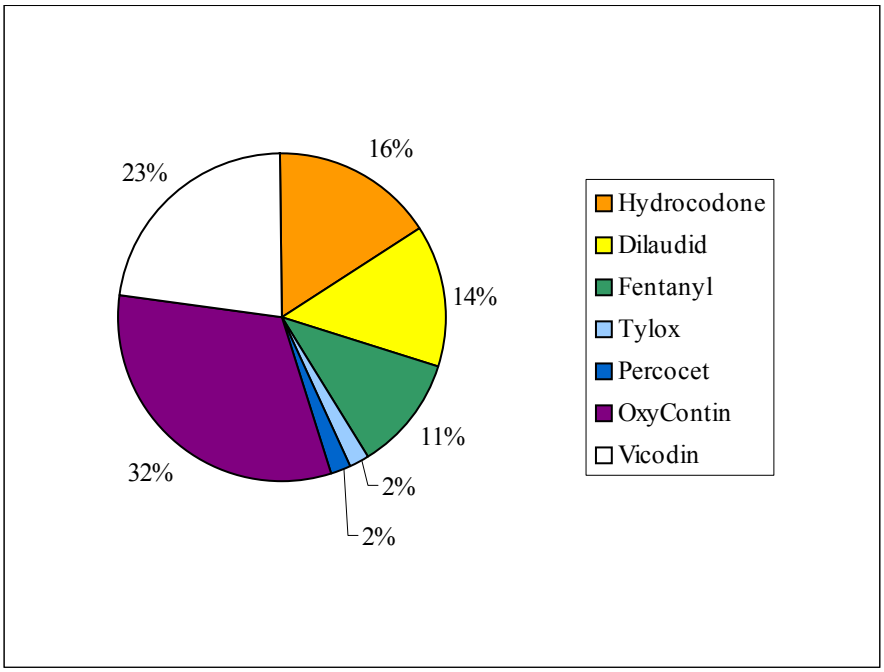


Figure 24. CESN Client Interviews 2004: Percent of Mentions (N=41) of Specific Benzodiazepine Drugs among 22 Respondents

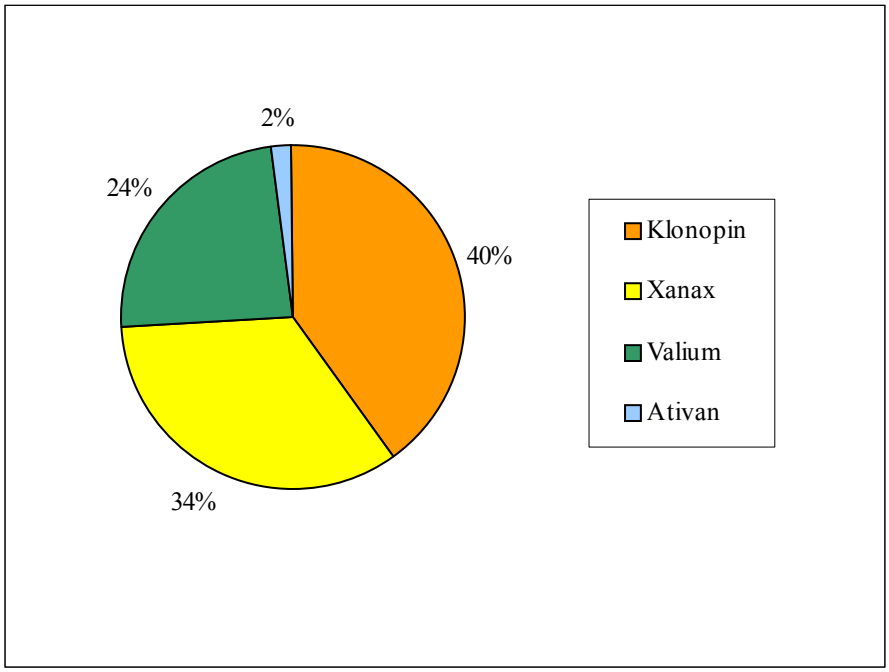


Table 10. CESN Client Qualitative Interviews 2004: Prescription Pain Pills and Tranquilizers

Questions n=42 interviews	**Prescription Pain Pills**	**Benzodiazepines—Tranquilizers**
Seen/heard about this drug being available in the last 6 months (approx. Jan-August, 2004)	38 respondents 33 (87%) yes	37 respondents 33 (89%) yes
Easier or harder to get recently, or about the same	34 respondents 18 (53%) easier 10 (29%) same 6 (18%) harder	33 respondents 15 (45%) easier 17 (52%) same 1 (3%) harder
How is it being used	34 respondents 13 (38%) inject 21 (62%) snort 3 (9%) smoke 27 (79%) swallow	33 respondents 33 (100%) swallow 11 (33%) snort
Trends in use	34 respondents • teens on up • all ages • middle age & younger • new supply of '80s' on every corner • new supply of Dilaudid • getting more expensive • eat the 'jelly', no taste • get from old people with prescriptions for pain	20 respondents • bite open & suck out time release capsules • readily available • all ages, teens on up • use in general population (several respondents) • can buy as many 10 mg valium as you need • can buy in Rumford • can buy on internet

Reported Use in the General Population

National Survey NSDUH (2002, 2003)

According to the 2003 National Survey of Drug Use and Health (NSDUH), 2002 (33.5 million sampled) and 2003 (32.3 million sampled) (http://oas.samhsa.gov/NHSDA/2k3NSDUH), the following comments can be made about non-medical use of prescription drugs:

- In 2003 an estimated 6.3 million persons (2.7% of the population 12+ years of age) were current users of psychotherapeutic drugs taken nonmedically. An estimated 4.7 million used pain relievers, 1.8 million used tranquilizers, 1.2 million used stimulants, and 0.3 million used sedatives. The 2003 estimates are all similar to the corresponding estimates for 2002.

- There was a significant increase in lifetime nonmedical use of pain relievers between 2002 and 2003 among persons aged 12 or older, from 29.6 million to 31.2 million. Specific pain relievers with statistically significant increases in lifetime use were Vicodin, Lortab, or Lorcet (from 13.1 million to 15.7 million);

Percocet, Percodan, or Tylox (from 9.7 million to 10.8 million); Hydrocodone (from 4.5 million to 5.7 million); OxyContin (from 1.9 million to 2.8 million); methadone (from 0.9 million to 1.2 million); and Tramadol (from 52,000 to 186,000).

National Survey among Youth -YRBS (2003)

This biannual survey, which was started in 1991, targets students in grades 9-12 in public and private schools (http://www.cdc.gov/HealthyYouth/yrbs/index.htm). It was taken from February through December, 2003 to measure health risk factors, including alcohol and drug use. The only prescription drug category covered by this survey is steroids. Some 4.8% of youth in Maine took steroids (5.8% among males and 3.2 among females); this compares with a national rate of 6.1% (6.8% among males and 5.3% among females.

Maine Youth Drug and Alcohol Use Survey (MYDAUS) (2002, 2004)

The Maine Youth Drug and Alcohol Use Survey (MYDAUS) for 2004 included a total of 75,165 Maine students in grades 6 -12, 45% males and 48% females, with 8% missing data. A total of 16.6% reported any lifetime non-medical use of "prescription drugs," slightly higher among females (17.3%) than males (15.5%) (Figure 29). A total of 7.8% reported use during the previous 30 days, slightly higher among females (7.9%) than males (7.4%). The percent using prescription drugs is slightly lower in 2004 than it was in 2002, when 8.1% reported use in the previous 30 days. Both current and lifetime use increase from grade 6 to grade 11, where they peak (24.6% with lifetime use and 11.6% with current use), falling slightly in grade 12. Thus, just under a quarter have used prescription drugs and just under an eighth have used in the previous 30 days. A total of 4.6% report they have used 10 or more times.

Accidental Injury and Death

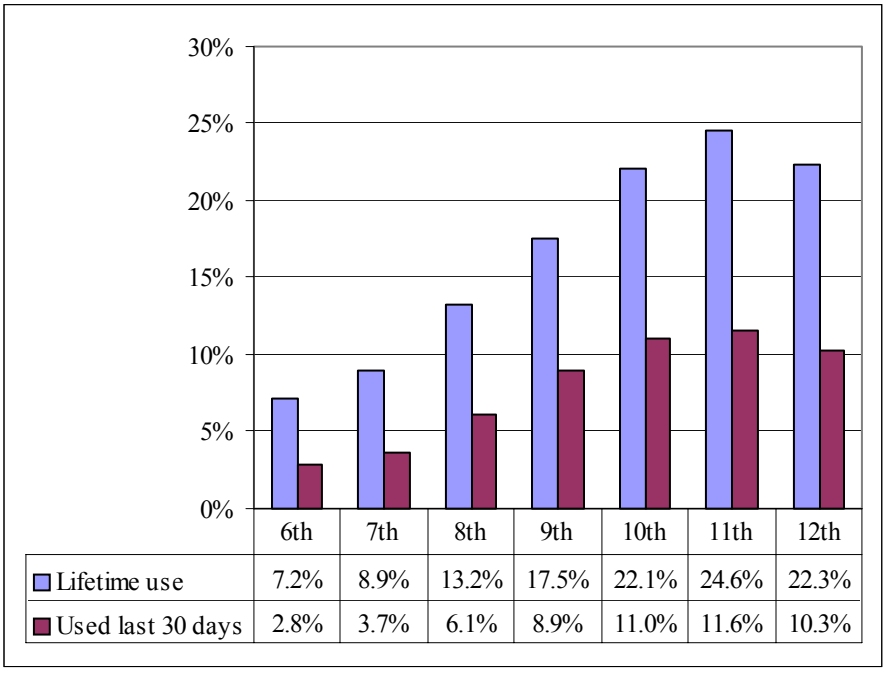
Poisoning Exposures –Northern New England Poison Center, Maine Data

Figure 30 shows the total number of exposures due to abuse or withdrawal in 2004 for prescription drug categories and selected over-the-counter (OTC) drugs. Opioids have the most exposures (n=114), benzodiazepines are second (n=87), and antidepressants are third (n=65). Nearly equal with antidepressants are the (OTC) dextromethorphan at 62.

Deaths –Maine Office of Chief Medical Examiner

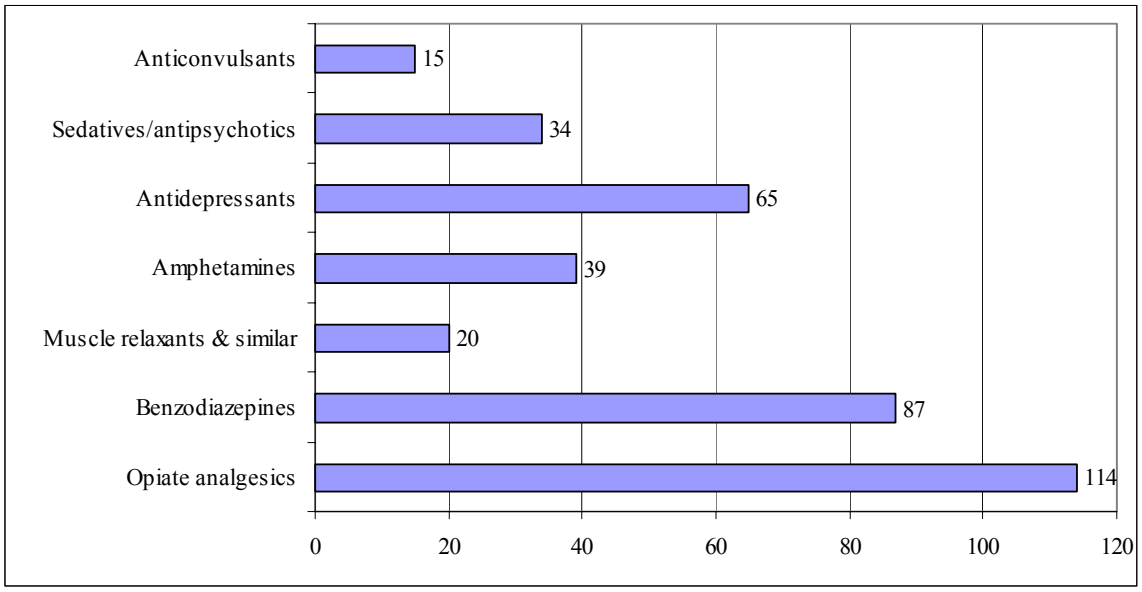
These findings are from the annual Maine Drug Death Update (Sorg, 2004) as well as the1997-2002 study (Sorg & Greenwald, 2002). Final totals for 2003 have not been finalized, awaiting several cases that are still pending, and no overall prescription drug estimates are yet available for 2004.

Figure 25. MYDAUS 2004: Lifetime and Current Use of Prescription Drugs by Grade



	6th	7th	8th	9th	10th	11th	12th
Lifetime use	7.2%	8.9%	13.2%	17.5%	22.1%	24.6%	22.3%
Used last 30 days	2.8%	3.7%	6.1%	8.9%	11.0%	11.6%	10.3%

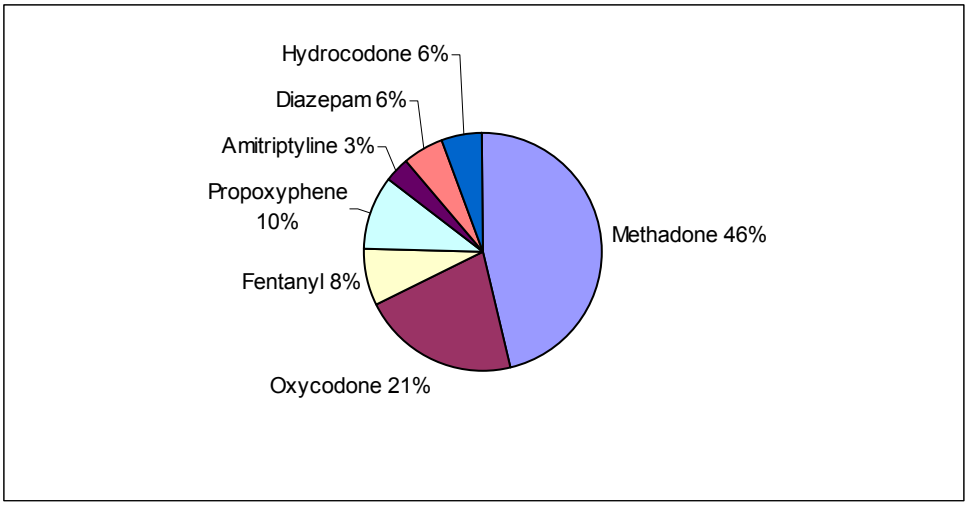
Figure 26. NNEPC-ME Calendar 2004: Poisoning Exposures due to Abuse or Withdrawal by Prescription Drugs*



*Amphetamines in this chart do not include methamphetamines

Of 142 drug deaths in 2003 for which toxicology or prescription status was known, 134 (94%) of the death certificates mentioned one or more pharmaceutical substances as the cause of death or significant contributing factor, either alone or in combination with other drugs (Figure 31). Two cases had no toxicology report. Six cases were caused by "morphine/heroin" only. Because prescription morphine is usually indistinguishable from heroin toxicologically, their prescription status is frequently unknown. In the past, unless it was noted otherwise, all heroin/morphine was assumed to be non-pharmaceutical. Four cases were known to be due to prescription morphine, so non-pharmaceutical status for "heroin/morphine" findings can no longer be assumed. Please refer to the Opioid section for more details regarding the proportion of methadone pills versus liquid associated with deaths.

Figure 27. OCME 2003: Relative Frequency of Top Seven Prescription Drugs Causing Deaths



Substance Abuse Treatment

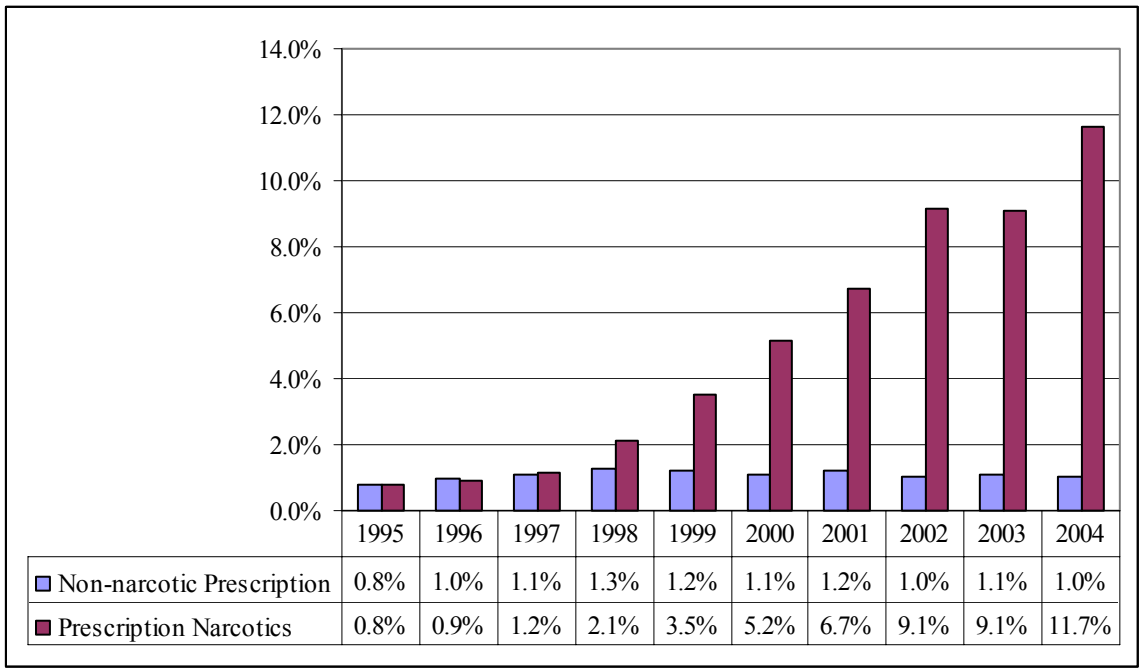
Treatment Data (TDS)

Figure 32 depicts unduplicated drug treatment admissions for specific primary problems involving prescription drugs, separating narcotic from non-narcotic drugs... Narcotic problems have dominated the prescription drug admissions. Additionally, there has been an increase in the overall volume of narcotic admissions, rising .214% since 2000. Figure 33 illustrates that most TDS admissions for narcotic problems have focused on opiate/opioids other than methadone. Figure 34 demonstrates that admissions for benzodiazepines have exceeded those for barbiturates and tranquilizers; benzodiazepine admissions have been risen 101% since 2000.

Table 11. TDS FY1995-FY2004 Number of Unduplicated Clients Admitted for Primary Problem of Narcotic and Non-narcotic Prescription Drug Abuse

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Non-narcotic Prescription Drug Abuse	75	92	104	129	118	109	129	124	147	143
Narcotic Prescription Drug Abuse	75	89	111	211	348	514	710	1111	1226	1616

Figure 28. TDS FY1995-FY2004 Percent of Unduplicated Clients Admitted for Primary Problem of Narcotic and Non-narcotic Prescription Drug Abuse

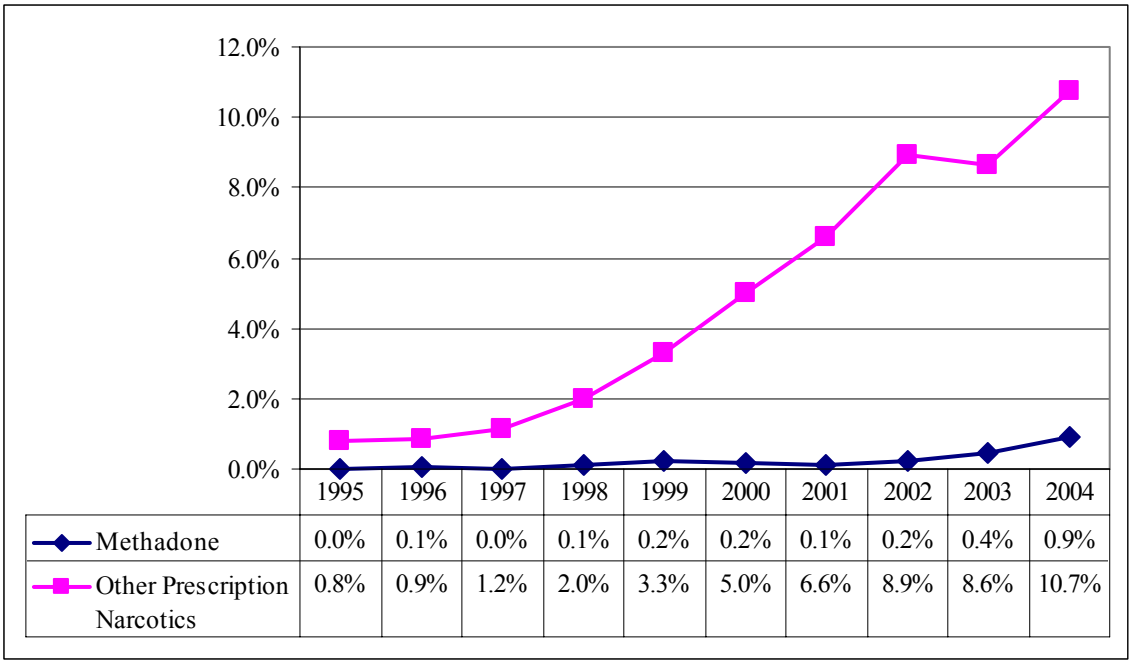


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Non-narcotic Prescription	0.8%	1.0%	1.1%	1.3%	1.2%	1.1%	1.2%	1.0%	1.1%	1.0%
Prescription Narcotics	0.8%	0.9%	1.2%	2.1%	3.5%	5.2%	6.7%	9.1%	9.1%	11.7%

Table 12. TDS FY1995-FY2004 Number of Unduplicated Clients Admitted for Primary Problem of Methadone and Other Prescription Opiate/Opioid Abuse

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Methadone	2	6	2	12	20	16	11	28	59	129
Other Prescription Narcotics	73	83	109	199	328	498	699	1083	1167	1487

Figure 29. TDS FY1995-FY2004 Percent of Unduplicated Clients Admitted for Primary Problem of Methadone and Other Prescription Opiate/Opioid Abuse

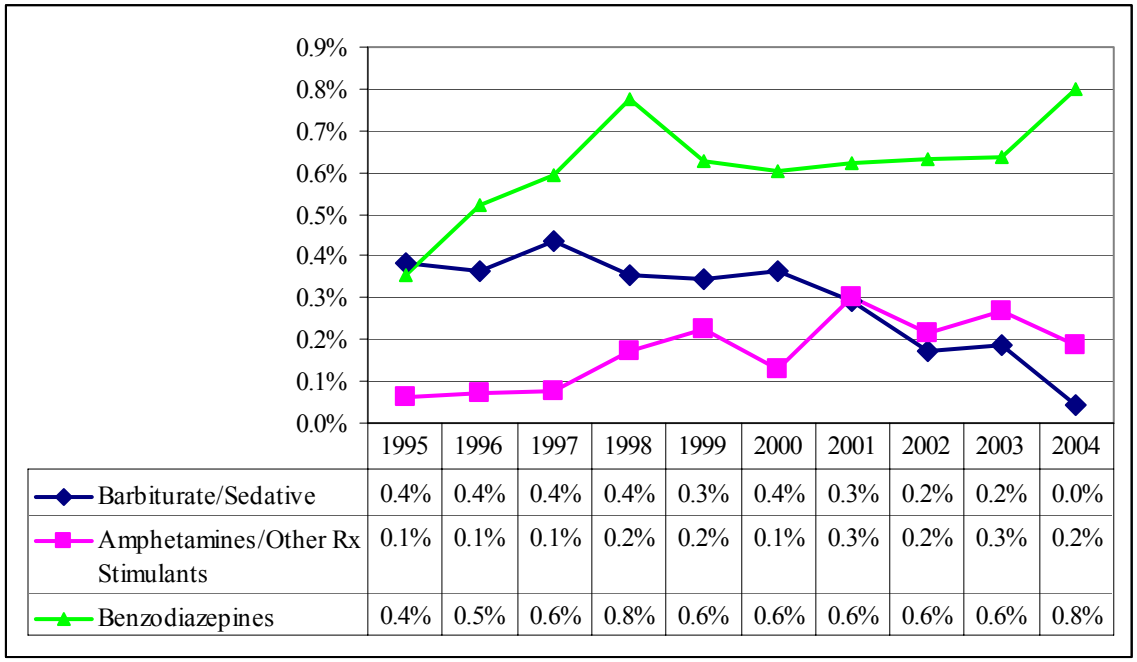


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Methadone	0.0%	0.1%	0.0%	0.1%	0.2%	0.2%	0.1%	0.2%	0.4%	0.9%
Other Prescription Narcotics	0.8%	0.9%	1.2%	2.0%	3.3%	5.0%	6.6%	8.9%	8.6%	10.7%

Table 13. TDS FY1995-2004: Number of Unduplicated Clients Admitted for Primary Problems of Non-Narcotic Prescription Drug Abuse

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Barbiturate/Sedative	36	35	41	35	34	36	31	21	25	8
Amphetamines/Other Prescription Stimulants	6	7	7	17	22	13	32	26	36	26
Benzodiazepines	33	50	56	77	62	60	66	77	86	111

Figure 30. TDS FY1995-2004: Percent of Unduplicated Clients Admitted for Primary Problems of Non-Narcotic Prescription Drug Abuse



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Barbiturate/Sedative	0.4%	0.4%	0.4%	0.4%	0.3%	0.4%	0.3%	0.2%	0.2%	0.0%
Amphetamines/Other Rx Stimulants	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.3%	0.2%	0.3%	0.2%
Benzodiazepines	0.4%	0.5%	0.6%	0.8%	0.6%	0.6%	0.6%	0.6%	0.6%	0.8%

Persons admitted for primary problems involving prescription drugs often report problems with a secondary or tertiary drug. These combinations have been analyzed using the TDS for FY2003 and FY2004. The polypharmacy combinations are similar in frequency between 2003 and 2004; 2004 data are used in Figures 35-37. The reader is also referred to Figures 25 (heroin) and 26 (analgesics) in the Opiate/opioid section.

Approximately three-quarters of those admitted for narcotic analgesics or benzodiazepines as a primary problem have secondary or tertiary problems noted as well. This contrasts with those admitted for alcohol as a primary problem, only 25% of whom note a secondary or tertiary problem. Those admitted for heroin/morphine as a primary problem are 44% likely to have a secondary or tertiary problem with narcotic analgesics, whereas only 20% of those admitted for a primary problem with narcotic analgesics are likely to have a secondary or tertiary problem with heroin/morphine.

Secondary/tertiary problems with benzodiazepines occur in 3% of marijuana admissions, 2% of alcohol admissions, 4% of methamphetamine admissions, 4% of cocaine admissions, 8% of heroin admissions, 10% of narcotic analgesic admissions, and 16% of methadone admissions.

Secondary/tertiary problems with narcotic analgesics occur in 3% of alcohol admissions, 12% of marijuana admissions, 18% of cocaine admissions, 41% of methadone admissions, 44% of heroin/morphine admissions, 8% of methamphetamine admissions, and 17% of benzodiazepine admissions.

Secondary/tertiary problems with methadone occur in 1% of marijuana admissions, 1% of cocaine admissions, 2% of heroin/morphine admissions, 6% of narcotic analgesics, and 2% of benzodiazepine admissions.

Figure 31. TDS FY2004: Primary Methadone Co-Occurring Drug Percentages (N=138)

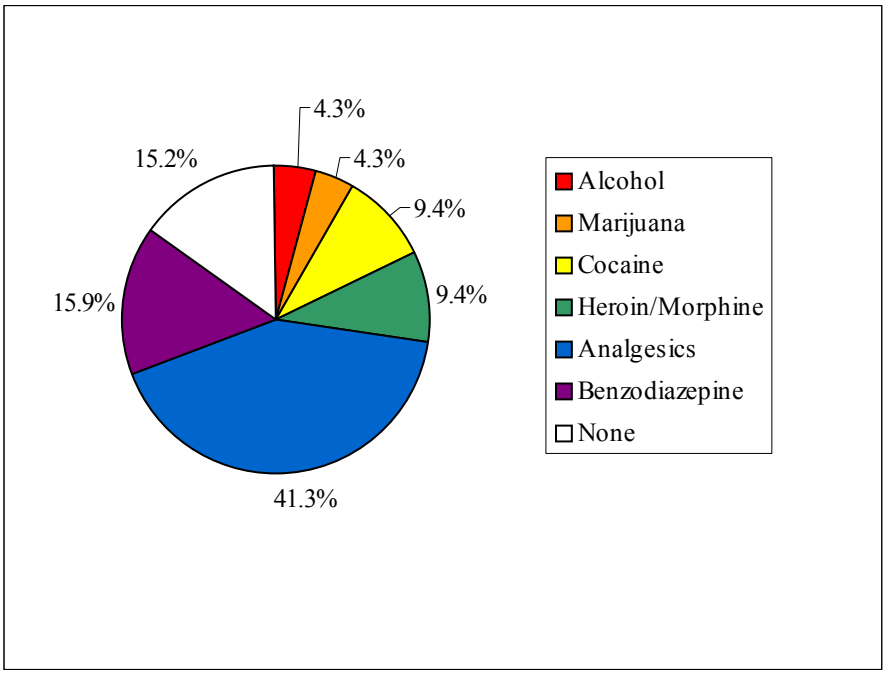


Figure 32. TDS FY2004: Primary Benzodiazepines Co-Occurring Drugs (N=110)

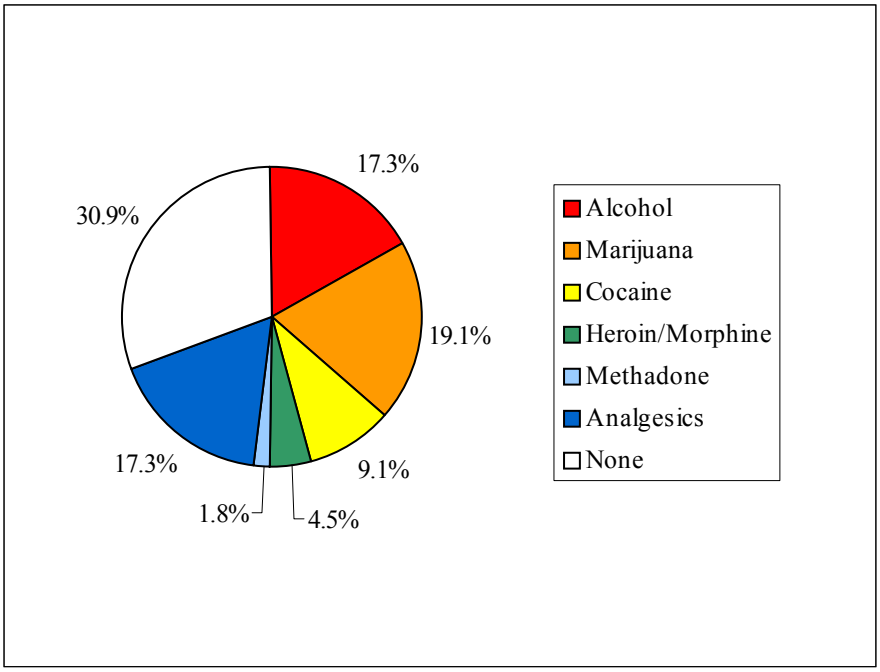
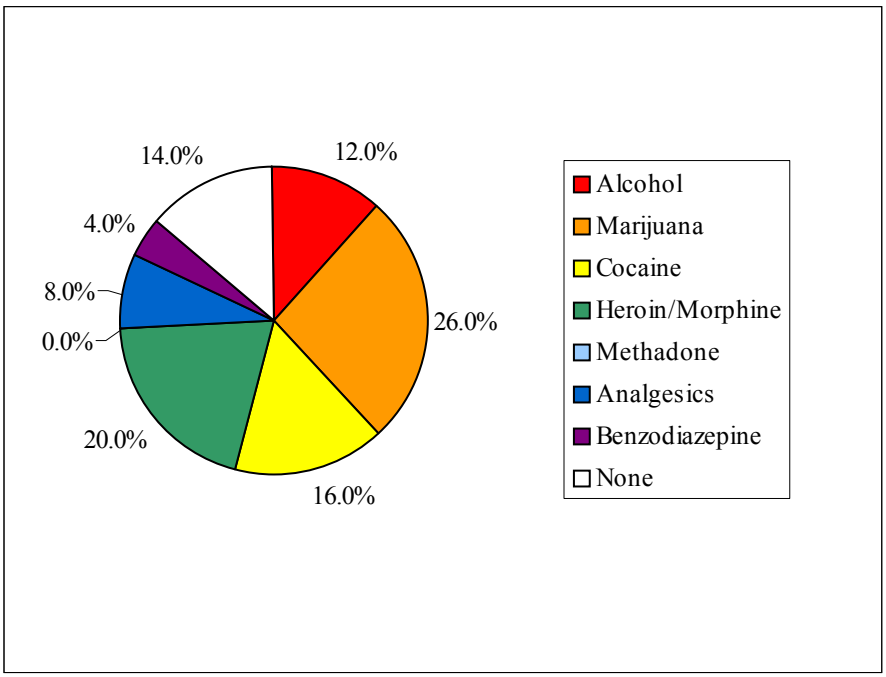


Figure 33. TDS FY2004: Primary Methamphetamine Co-Occurring Drugs (N=50)

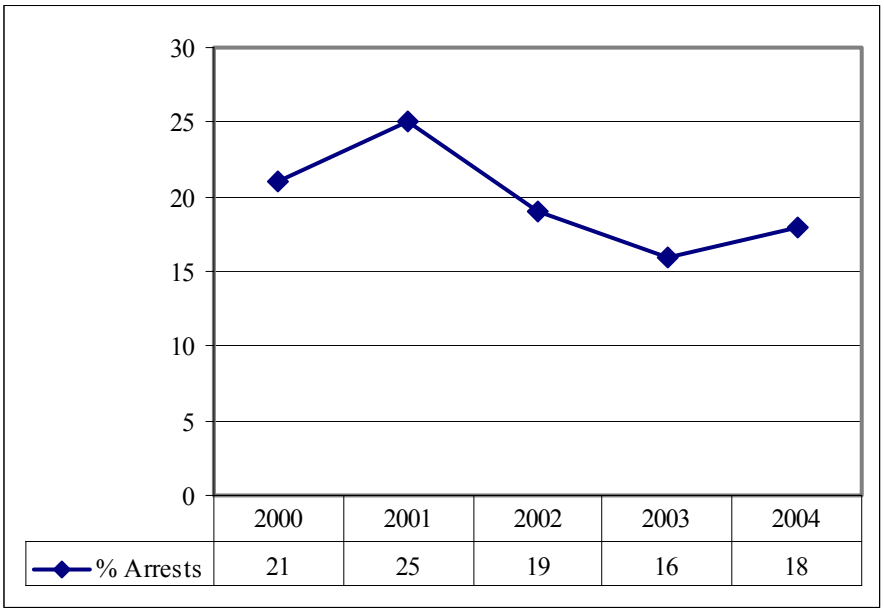


Drug Trafficking: Arrests, Seizures, and Prosecutions

Maine Drug Enforcement Agency (MDEA)

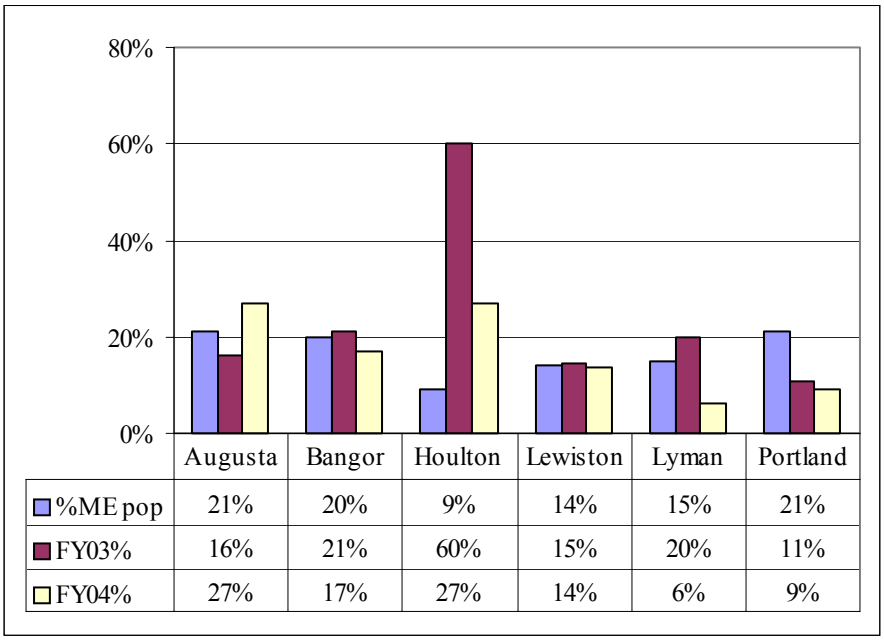
MDEA arrests (N=719) for FY2004 include 129 (18%) for prescription drugs. Prescription drug arrests peaked in 2001, but have risen since last year (Figure 38).

Figure 34. MDEA FY2000-2004: Percent Arrests for Prescription Drugs



The MDEA report for FY2003 includes subreports from each of the regional task forces. The percent of arrests for prescription drugs across the task forces for FY2003 and FY2004 is shown in Figure 39. Increases in the proportion of prescription drug arrests were seen only for the Augusta task force (from 16% to 27% of statewide prescription drug arrests). A large decrease was seen for the Houlton task force (from 60% to 27% of statewide prescription drug arrests) and for Lyman (from 20% to 6%). The percent of arrests in FY04 was more than expected on the basis of population size in the Augusta region - 6% more, and in the Houlton region, 18% more.

Figure 35. MDEA FY2003, 2004: Regional Task Force Arrests (Percent of Statewide Prescription Drug Arrests), Compared to Percent of Maine Population in Each Region



	Augusta	Bangor	Houlton	Lewiston	Lyman	Portland
%ME pop	21%	20%	9%	14%	15%	21%
FY03%	16%	21%	60%	15%	20%	11%
FY04%	27%	17%	27%	14%	6%	9%

The FY2003 MDEA report provides statistics for pharmaceutical drug seizures (Table 7). Beginning in 2002, methadone pills and liquid are shown separately. Seizures of pills peaked in FY2001, liquid methadone used in narcotic treatment programs in FY2002, and methadone pills used in pain management in FY2003.

Table 14. MDEA FY2000-2003: Number of Pharmaceutical Units Seized

	Pharmaceutical Dosage Units	Pharmaceutical Liquid, Number of ml	Methadone Dosage Units	Methadone Liquid, Number of ml
2000	4,563	345	*	*
2001	13,978	250	*	*
2002	5,274	0	452	1,820
2003	4,417	5	1,270	790

*no data

Maine Drug Threat Assessment Update (NDIC), August 2003

In their 2003 report, which covers 2002, the NDIC noted that the drug threat posed by diverted prescription drugs was as large as the threat posed by heroin. OxyContin and Dilaudid were mentioned as the greatest problems, along with frequent problems with Percocet, Ritalin, Vicodin, and Xanax. They note an increase in methadone diversion and abuse. Results of the NDTS 2002 survey of law enforcement respondents (38 out of 42 queried) show that pharmaceutical availability is medium or high throughout Maine. The NDIC comments that diversion occurs through prescription fraud, improper prescribing practices, "doctor shopping," and pharmacy theft. Some are transported into Maine from Canada, or purchased over the internet (with private delivery shipping). Many dealers are also abusers, and distribution is from public areas, bars, and private residences.

Health and Environmental Testing Laboratory (HETL): Seizures, FY 2003

Of the 1,076 seizures for 2003, 291 (27%) were in the prescription drugs category (see Table 8). Of these 291, 86% were narcotics, 12% were benzodiazepines, and 1% were methylphenidate.

Table 15. HETL FY 2003: Seizures Tested

Drug Category	Drug	Total Samples Tested	Category Total (%)
Narcotics			251 (23%)
	Oxycodone	97	
	Hydrocodone	18	
	Fentanyl	1	
	Buproprion	1	
	Methadone (Liquid)	1	
	Methadone (Tablet)	21	
	Morphine (Tablet)	9	
	Tramadol	1	
	Propoxyphene	1	
	Codeine	1	
Benzodiazepines			34 (3%)
	Alprazolam	14	
	Diazepam	3	
	Clonazepam	11	
	Lorazepam	6	
Stimulants	Methylphenidate	6	6 (1%)
TOTAL			291 (100%)

Department of Attorney General (AG) –Prosecutions

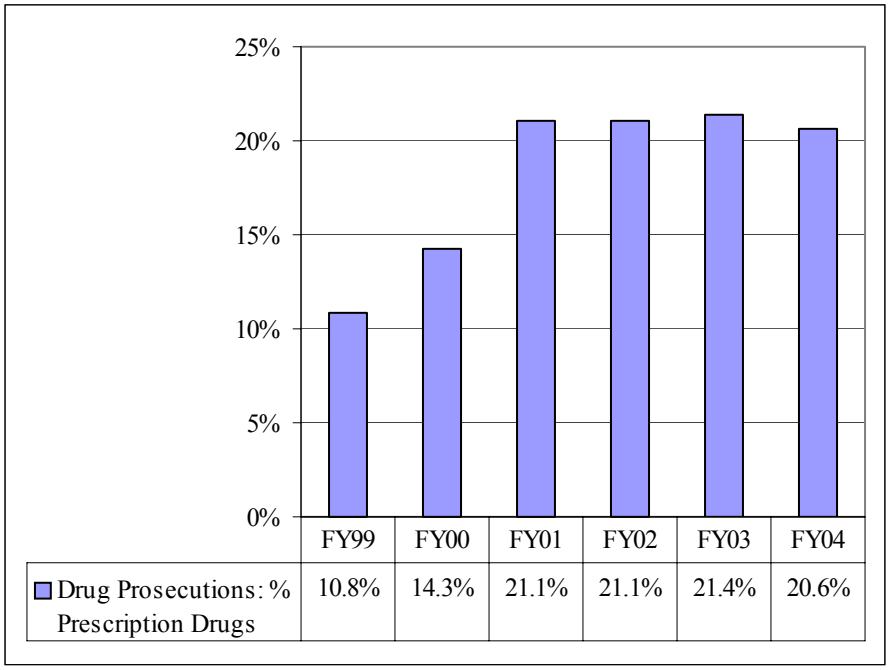
After rising dramatically between FY1999 and FY2001, prosecutions for prescription drug offenses have remained stable over the last three years at 21% of prosecutions (Figure 40). However, in FY2004 more prescription drug cases than heroin cases were prosecuted; this had not been the case since FY2001. The volume of

prescription drug prosecutions is heaviest and about equal in Cumberland and York Counties.

In terms of demographics, current average age for defendants of prescription drug prosecutions is 33, slightly older than for heroin (29) and older than for LSD (21). The average age has fluctuated between 30 and 35 since FY2000. Surprisingly, prosecutions for prescription drug charges in FY2004 involved 71 males, but no females.

It is important to note that the volume of prosecutions is a function not only of drug-related crime volume, but also state resources. The overall number of drug cases prosecuted increased in FY2004 (e.g., closed cases increased from 515 in FY2003 to 615) due to shifting of cases from the District Attorney Offices as well as increased MDEA productivity. Anticipated cuts in federal funding for the Multi-Jurisdictional Task Force may significantly affect these statistics.

Figure 36. AG FY1999-2004: Drug Prosecutions



	FY99	FY00	FY01	FY02	FY03	FY04
Drug Prosecutions: % Prescription Drugs	10.8%	14.3%	21.1%	21.1%	21.4%	20.6%

Alcohol and Marijuana

Summary

Alcohol and marijuana often have received less attention in Maine during recent years due to the ascendancy of mortality and morbidity associated with other substances. Yet alcohol is still responsible for more death and disability than any other substance. And marijuana is very common in its use and frequently associated with other substances. Tobacco is not covered in this report, which focuses on statewide patterns of use and misuse of alcohol and marijuana in Maine.

The recently released economic impact report by the Maine Office of Substance Abuse notes that alcohol treatment costs in the study calendar year of 2000 constitute 78% of substance abuse treatment costs, amounting to over $15 million dollars in Maine that year. Since 1990, alcohol admissions have constituted 74% and marijuana 12% of all TDS admissions. In FY2004 there were 7,873 persons admitted for the primary problem of alcohol, and 1,704 for marijuana. Additionally, alcohol and marijuana are frequently reported as secondary or tertiary problem drugs in 18%-30% of primary admissions for other substances. Together, alcohol and marijuana consume the vast majority of substance abuse treatment resources. Alcohol admissions have been increasing annually since FY1997. The number of marijuana admissions dropped slightly in 2004 for the first time since 1990.

Marijuana

National survey results suggest that marijuana is the most commonly used illegal substance, used by 6.2% of the general population 12 and over (NSDUH 2003). More than half of those 18-25 (53.9%) report any lifetime use and 12.3% have used it in the past month. According to the 2003 YRBS, 22.4% of American youth grades 9-12 used marijuana in the past 30 days, somewhat higher, 26.4%, in Maine. The 2004 MTF and the 2004 MYDAUS reveal that 6.4% of American and 7.9% of Maine 8th graders have used marijuana in the past month; by 12th grade the figures are 19.9% nationally and 26.8% for Maine. The MYDAUS rates for all grades and both genders have shown a slight decrease between FY2000 and FY2004. In CESN qualitative interviews, two respondents (from Portland and from Rockland) suggest a new use of marijuana "pills;" the Rockland area respondent mentioned the source as a "pill farm."

Of 374 Maine drug-related deaths 1997-2002, 18% of decedents had cannabinoids present in their toxicology findings. The percentage of marijuana arrests has increased from 18% to 34% of MDEA arrests between FY2003 and FY2004, using preliminary data. There has been a corresponding rise in marijuana prosecutions, from 19% to 24% in the same time period. During FY2003, the MDEA reports that 3,022 marijuana plants were seized (down from 3,848 in FY2002) and 447 kg of processed marijuana was seized (up from 202 kg in FY2002). The state lab seizure samples included 17% testing positive for marijuana.

Alcohol

National survey data from 2003 NSDUH reveal that alcohol is used by 50.1% of the general population 12 and over; 22.6% participate in binge drinking, and 6.8% are heavy drinkers. Those aged 18-25 tend to use more heavily. According to the 2003 YRBS, 44.9% of American youth grades 9-12 used alcohol in the past 30 days, slightly lower, 42.2%, in Maine. The 2004 MTF and the 2004 MYDAUS reveal that 18.6% of American and 22.4% of Maine 8th graders have used alcohol in the past month; by 12th grade the figures are 48.0% nationally and 49.2% for Maine. The MYDAUS rates for all grades and both genders have shown a slight decrease between FY2000 and FY2004.

During the past calendar year about 17% of NNEPC-ME poisoning exposures due to abuse or withdrawal were due to alcohol. Data from the Maine Office of Chief Medical Examiner show a rising rate of deaths due to alcohol in combination with other substances. Approximately 25% of all drug-related deaths since 1997 have alcohol present in their toxicology findings.

Qualitative Interviews

Needle Exchange, Homeless Shelter, and Opiate Treatment Clients (Summer, 2004)

Marijuana

Limited data are available from interviews of persons in either the needle exchange program or the homeless shelter in Portland, as well as persons going through the intake process in the opiate treatment programs during the summer of 2004. The CESN questionnaire did not ask specifically about either alcohol or marijuana.

Sixteen respondents mentioned marijuana in the "other" category (Table 9). Half (50%) said marijuana was easier to get recently (referring to the first half of 2004); 17% said harder, and 33% said about the same. Four persons said there was a new supply. One person from the Rockland/mid-coast area commented that there was, recently, "lots and very good grade" marijuana available without "many twigs." A respondent from Portland commented that people use marijuana more openly on the street. Two respondents (Augusta and Sanford) commented there was more "homegrown" product. One person from Rockland noted the existence of a marijuana "pill farm," when commenting on "pills" as a new use. One respondent noted Biddeford had seen new supply recently. Two people (both from Biddeford) said more older people were using marijuana. Two others noted widespread use in "all populations," with age groups, according to one respondent, all the way from "18 to 80."

Alcohol

Two respondents mentioned alcohol in the "other" category. One respondent from Biddeford said there was more use by the very young, aged 12-13 up through high school.

Figure 37. CESN Qualitative Interview 2004: Alcohol and Marijuana

Questions n=42 interviews	Marijuana	Alcohol
Seen/heard about this drug being available in the last 6 months (approx. Jan-August, 2004)	16 respondents mentioned marijuana in the "other" category; Other terms used: "cannabis" "pot" "grass" "weed"	2 respondents mentioned alcohol in the "other" category
Easier or harder to get recently, or about the same	12 respondents 6 (50%) easier 4 (33%) same 2 (17%) harder	2 respondents 2 (100%) easier
How is it being used	11 respondents 11 (100 %) smoke 2 (17%) pills	2 respondents 2 (100%) swallow
Trends in use	10 respondents • No new trends (2 respondents, Portland and Lewiston) • Lots and very good grade, not many twigs (1 respondent, Rockland/midcoast) • All populations (2 respondents) • Older people (2 respondents, both from Biddeford) • Using on street openly (Portland) • Using pills (2 respondents –Rockland and Portland); Rockland respondent referred to "pill farm" • More communities involved (1 respondent, Biddeford) • More homegrown (2 respondents, Portland and Sanford)	2 respondents • More use by very young, 12-13 years of age up through high school (1 respondent, Biddeford)

Reported Use in the General Population

National Survey among Youth and Adults sponsored by SAMHSA: NSDUH (2002, 2003)

According to the annual National Survey of Drug Use and Health (NSDUH), 2002 (33.5 million sampled) and 2003 (32.3 million sampled) (http://oas.samhsa.gov/NHSDA/2k3NSDUH), comments can be made about the use of alcohol and marijuana by the general U.S. population, aged 12 and over. The 2002 and 2003 surveys are not strictly comparable in method to the surveys from prior years and cannot be combined to view long term trends. The NSDUH findings can be compared in part to those from the Monitoring the Future (MTF) survey conducted by the National Institute on Drug Abuse (NIDA), which surveys students in 8th, 10th, and 12th grades. These results are presented below. The substance use prevalence rates reported by MTF

tend to be slightly higher than those for youth in NSDUH, but the trends over time are similar. Table 10, adapted from Table 9.1 in the NSDUH report, compares NSDUH and MTF rates for youth.

Marijuana

Marijuana is described as "the most commonly used illicit drug," used by 6.2% of the U.S. population in 2003. NSDUH reports that there were 2.6 million new marijuana users in 2002, 69% under the age of 18 and 53% female. This number increased 1990-1995, then fluctuated from 1995 to 2002. Among youth 12-17, 19.6% report any lifetime use, 15.0% any use in the past year, and 8.2% any use in the past month. Among those 18-25, 53.9% report any lifetime use, 29.8% any use in the past year, and 12.3% any use in the past month. The proportion of youth reporting that it is easy to obtain marijuana decreased slightly, from 55.0% in 2002 to 53.6% in 2003. Youth whose parents disapprove of marijuana use are less likely (5.4%) to have used it in the past month compared to those whose parents neither approve nor disapprove (28.7%).

Alcohol

Based on 2003 NSDUH findings, alcohol is used by 50.1% of the U.S. population. Just under a quarter, 22.6%, participate in "binge drinking" (highest, 41.6%, among those aged 18-25), and 6.8% are "heavy drinkers" (again, highest, 15.1%, among those aged 18-25). Among those who are underage, aged 12-20, 29.0% reported binge drinking and 6.1% are heavy drinkers. Among youth 12-17, 42.9% report any lifetime use, 34.3% any use in the past year, and 17.7% any use in the past month. Among those 18-25, 87.1% report any lifetime use, 78.1% any use in the past year, and 61.4% any use in the past month. Approximately 13.6% of those 12 or older drove at least once during 2003 under the influence of alcohol. This percent rises from 9.7% of 16-17 year olds, to 20.1% of 18-20 year olds, to 28.7% of 21-25 year olds. The rates decline with age after 25. Males are twice as likely (18.2%) to drive under the influence as females (9.3%). The 2002 NSDUH findings regarding alcohol are, overall, similar to those from 2003.

Table 16. Comparison of NSDUH and MTF National Prevalence Rates (Percent) for Youth and Young Adults

	NSDUH Age 12-17		MTF 8th and 10th Grades		NSDUH Age 18-25		MTF Age 19-28	
	2002	2003	2002	2003	2002	2003	2002	2003
Marijuana								
Lifetime	20.6	19.6	29.0	27.0	53.8	53.9	56.8	57.2
Past year	15.8	15.0	22.5	20.5	29.8	28.5	29.3	29.0
Past month	8.2	7.9	13.1	12.3	17.3	17.0	16.9	17.3
Alcohol								
Lifetime	43.4	42.9	57.0	55.8	86.7	87.1	90.2	89.3
Past year	34.6	34.3	49.4	48.3	77.9	78.1	84.9	83.3
Past month	17.6	17.7	27.5	27.6	60.5	61.4	68.3	67.0

National Survey among Youth sponsored by the CDC –Youth Risk Behavior Surveillance System (YRBS), 2003

This biannual survey, which was started in 1991, targets students in grades 9-12 in public and private schools (http://www.cdc.gov/HealthyYouth/yrbs/index.htm). This survey was conducted from February through December, 2003 to measure health risk factors, including alcohol and drug use. Sub-sample totals for Maine are reported for most questions. Highlights involving alcohol and marijuana are noted below and in Table 12.

Marijuana

More Maine high school students have used marijuana recently than their counterparts nationally, particularly males.

- Nationally, 40.2% report lifetime use of marijuana, more in males (42.7%) than females (37.6%); in Maine, there are no figures for lifetime use.
- Nationally, 22.4% report current use (last 30 days) of marijuana, more among males (25.1%) than females (19.3%); in Maine, 26.4% report current use, more in males (31.4%) than females (20.9%).
- Nationally, the percent reporting lifetime use of marijuana rises from 30.7% in 9th grade to 48.5% in 12th grade; no grade breakdown is given for Maine in the YRBS sub-sample, but MYDAUS 2004 (see below) reports 27.4% for 9th grade and 50.6% for 12th grade.
- Nationally, the current use percent rises from 18.5% in 9th grade to 25.8% in 12th grade; no grade breakdown is given for Maine in the YRBS sub-sample, but MYDAUS 2004 (see below) reports 15.6% for 9th grade and 26.8% for 12th grade.

Alcohol

Maine numbers for alcohol are similar to national figures in general, although the slight dominance of females nationally in lifetime and current alcohol use is reversed in Maine, and the overall percent of both current and lifetime alcohol use is less in Maine.

- Nationally, 74.9% report lifetime use of alcohol, more in females (76.1%) than males (73.7%); in Maine, there are no figures for lifetime use.
- Nationally, 44.9% report current use (last 30 days) of alcohol, more in females (45.8%) than in males (43.8%); in Maine, 42.2% report current use, more in males (42.8%) than females (41.3%).
- Nationally, the percent reporting lifetime use of alcohol rises from 65.0% in 9th grade to 83% in 12th grade; no grade breakdown is given for Maine in the YRBS sub-sample, but MYDAUS 2004 (see below) reports 54.9% for 9th grade and 75.6% for 12th grade.
- Nationally, the current use percent rises from 36.2% in 9th grade to 55.9% in 12th grade; no grade breakdown is given for Maine in the YRBS sub-sample, but MYDAUS 2004 (see below) reports 32.5% for 9th grade and 49.2% for 12th grade.

Table 11 compares the YRBS 2003 with the comparable Maine survey, MYDAUS 2004, which is discussed below.

Table 17. Comparison of YRBS (2003) and MYDAUS (2004) Prevalence Rates (Percent) for Youth

	YRBS 2003 – national Grades 9-12			YRBS 2003 –Maine Grades 9-12			MYDAUS 2004 Grades 6-12		
	Female	**Male**	**Total**	**Female**	**Male**	**Total**	**Female**	**Male**	**Total**
Marijuana									
Lifetime use	37.6	42.7	40.2	---	---	---	24.7	28.0	26.9
Current use (past 30 days)	19.3	25.1	22.4	20.9	31.4	26.4	12.8	16.1	14.8
Lifetime use by grade									
6	---	---	---	---	---	---	---	---	2.6
8	---	---	---	---	---	---	---	---	14.8
9	---	---	30.7	---	---	---	---	---	27.4
10	---	---	40.4	---	---	---	---	---	39.4
12	---	---	48.5	---	---	---	---	---	50.6
Current use by grade									
6	---	---	---	---	---	---	---	---	1.4
8	---	---	---	---	---	---	---	---	7.9
9	---	---	18.5	---	---	---	---	---	15.6
10	---	---	22.0	---	---	---	---	---	22.5
12	---	---	25.8	---	---	---	---	---	26.8
Alcohol									
Lifetime use	76.1	73.7	74.9	---	---	---	49.9	50.5	50.7
Current use (past 30 days)	45.8	43.8	44.9	41.3	42.8	42.2	29.0	29.7	29.7
Episodic heavy drinking	27.5	29.0	28.3	22.6	31.5	27.3	---	---	---
Lifetime use by grade									
6	---	---	---	---	---	---	---	---	17.9
8	---	---	---	---	---	---	---	---	42.7
9	---	---	65.0	---	---	---	---	---	54.9
10	---	---	75.7	---	---	---	---	---	64.8
12	---	---	83.0	---	---	---	---	---	75.6
Current use by grade									
6	---	---	---	---	---	---	---	---	6.7
8	---	---	---	---	---	---	---	---	22.4
9	---	---	36.2	---	---	---	---	---	32.5
10	---	---	43.5	---	---	---	---	---	40.3
12	---	---	55.9	---	---	---	---	---	49.2

National Survey among Youth sponsored by NIDA: Monitoring the Future – 2004

This annual survey (www.monitoringthefuture.org/new.html) focuses on youth in grades 8, 10, and 12, as well as a small sub-sample of previous-year 12th grade participants. It began in 1975. The sample size is currently approximately 50,000 students located in roughly 400 schools, both private and public.

Marijuana

Comparing the MTF with Maine's MYDAUS 2004, it is clear that lifetime and current use of marijuana in 8th, 10th, and 12th grades is greater in Maine. The MTF statistics for 10th and 12th grades are intermediate between YRBS and MYDAUS for lifetime and current use of marijuana.

- Lifetime use: 16.3% of 8th graders (Maine MYDAUS 2004 comparison 14.8%)
- Lifetime use: 35.1% of 10th graders (Maine MYDAUS 2004 comparison 39.4%) (YRBS national 2003 comparison 40.4%)
- Lifetime use: 45.7% of 12th graders (Maine MYDAUS 2004 comparison 50.6%) (YRBS national 2003 comparison 48.5%)
- Current use: 6.4% of 8th graders (Maine MYDAUS 2004 comparison 7.9%)

- Current use: 15.9% of 10th graders (Maine MYDAUS 2004 comparison 22.5%) (YRBS national 2003 comparison 22.0%)
- Current use: 19.9% of 12th graders (Maine MYDAUS 2004 comparison 26.8%) (YRBS national 2003 comparison 25.8%)

Alcohol

Comparing the MTF with Maine's MYDAUS 2004, it is clear that lifetime and current use of alcohol in 8th, 10th, and 12th grades is greater in Maine. The MTF statistics for 10th and 12th grades are greater than both YRBS and MYDAUS for lifetime and current use alcohol.

- Lifetime use: 43.9% of 8th graders (Maine MYDAUS 2004 comparison 42.7%)
- Lifetime use: 64.2% of 10th graders (Maine MYDAUS 2004 comparison 64.8%) (YRBS national 2003 comparison 75.7%)
- Lifetime use: 76.8% of 12th graders (Maine MYDAUS 2004 comparison 75.6%) (YRBS national 2003 comparison 83%)
- Current use: 18.6% of 8th graders (Maine MYDAUS 2004 comparison 22.4%)
- Current use: 35.2% of 10th graders (Maine MYDAUS 2004 comparison 40.3%) (YRBS national 2003 comparison 43.5%)
- Current use: 48.0% of 12th graders (Maine MYDAUS 2004 comparison 49.2%) (YRBS national 2003 comparison 55.9%)

Behavioral Risk Factor Surveillance System (Maine 1995-2002)

The CDC's survey of adults 18 years of age and above provides longitudinal data by state 1990-2002, and prevalence data by state for 2003, on a range of questions about health, including alcohol consumption but not marijuana (http://www.maine.gov/dhhs/bohodr/brfsspge.htm).

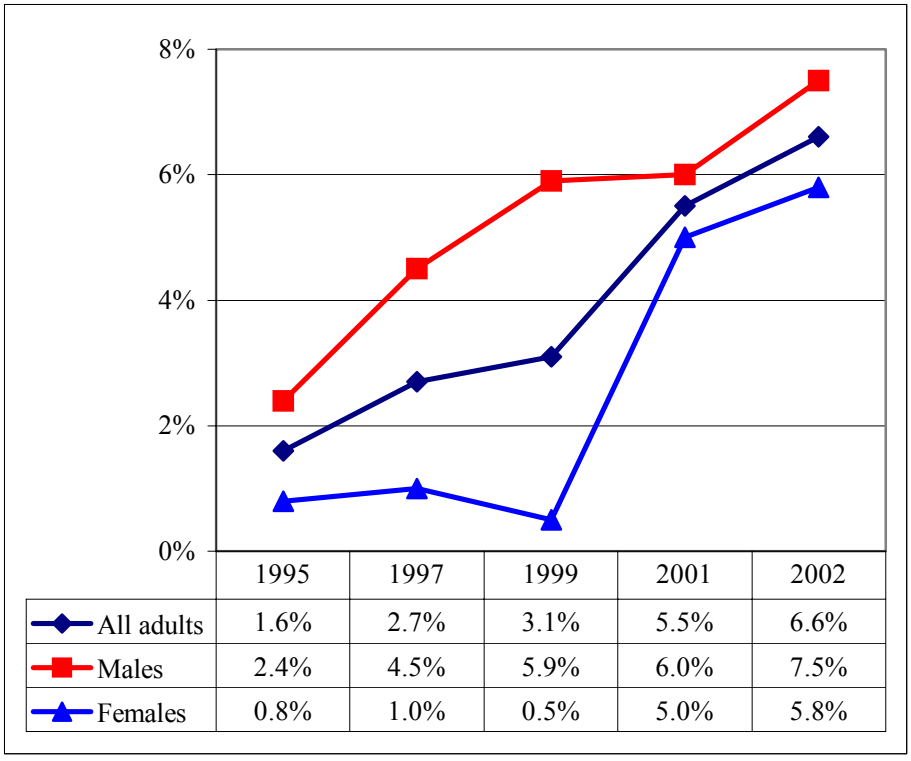
Alcohol

Figures 41 through 44 display percentages of chronic drinking and binge drinking among Maine adults by gender and age group 1995-2002. Chronic drinking has increased four-fold on average among Maine adults between 1995 and 2002. The gender difference is pronounced in 1995-1999, with only 0.5 to 1.0% women reporting chronic drinking, and 2.4 to 5.9% of men. The percent of men reporting chronic drinking increased from 2.4 to 7.5% during 1995-2002. Women nearly caught up to men in 2001, increasing from 0.5% in 1999 to 5.0% in 2001, then up to 5.8% the following year. A much larger percent of men (16.3%) than women (7.1%) report binge drinking in 1995. That disproportion holds throughout the period, including 2002, during which 22.9% of men and 8.6% of women report binge drinking. Both chronic and binge drinking show age-related differences, with larger percentages of adults 18-35 reporting both types of drinking. The proportion decreases with age, but increases within all age groups between 1995-2002. Nearly a third (29.3%) of young adults 18-34 reported binge drinking in 2002, up slightly from 21.3% in 1995. Fifteen and seven-tenths percent of adults 35-49, 9.3% of adults 50-64, and 2.7% of adults 65 and over report binge drinking in 2002. The overall 2002 binge drinking average for Maine, 15.4%, is slightly less than the national median percent of 16.1%. The overall 2002 chronic drinking average for Maine, 5.9%, is slightly less than the national median percent of 6.6%. Chronic drinking has increased

nationally, as in Maine; binge drinking has been holding steady since 1995, in both Maine and the nation as a whole.

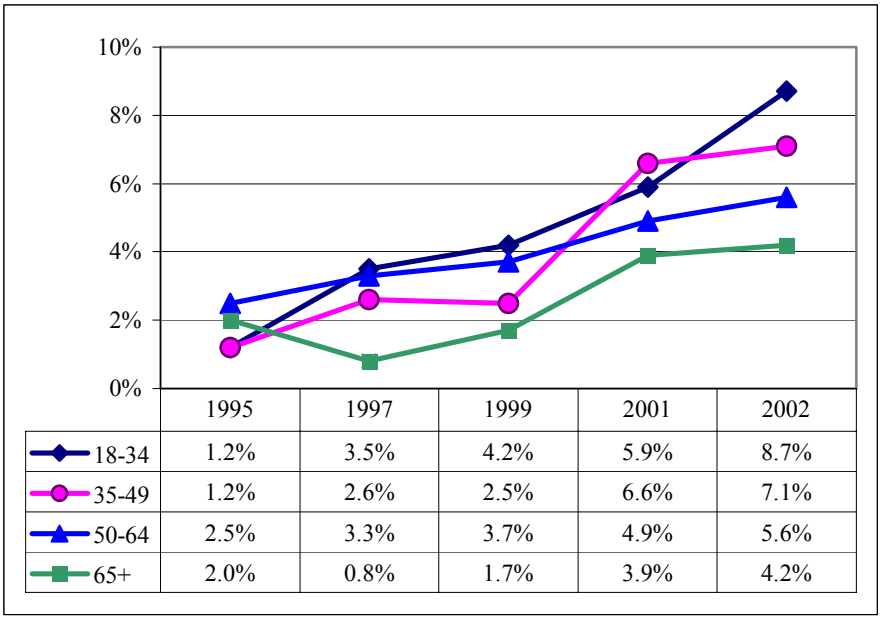
The BRFSS reports that in 2003, 61.7% of Maine adults were at risk for having had at least one drink in the previous 30 days; 16.8% report having experienced at least one binge of five or more drinks, very similar to the national average of 16.5%.

Figure 38. BRFSS 1995-2002: Chronic Drinking Among Maine Adults by Gender: Percent of Adult Males 18+ Who Report an Average of Two or More Drinks Per Day and Females 18+ Who Report an Average of More Than One Drink Per Day



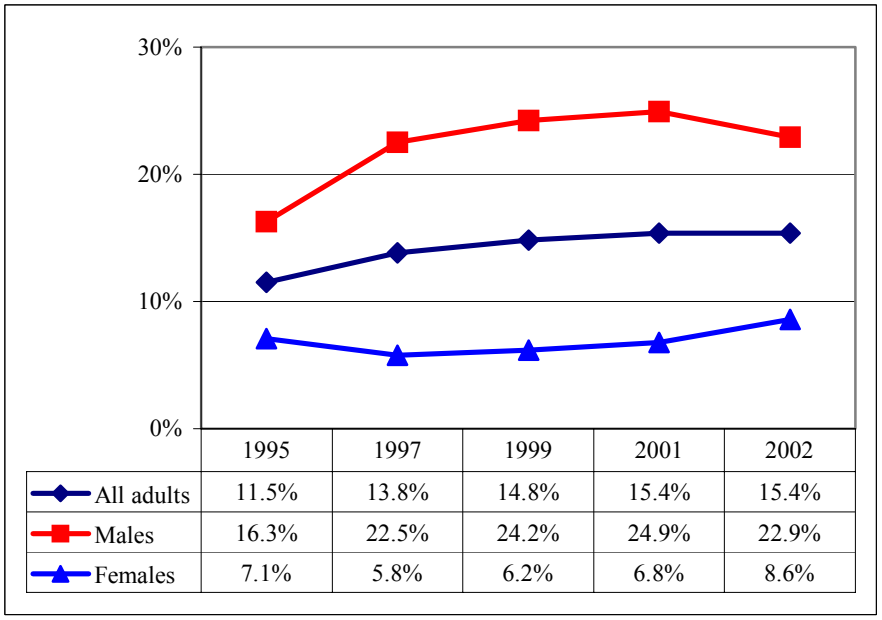
	1995	1997	1999	2001	2002
All adults	1.6%	2.7%	3.1%	5.5%	6.6%
Males	2.4%	4.5%	5.9%	6.0%	7.5%
Females	0.8%	1.0%	0.5%	5.0%	5.8%

Figure 39. BRFSS 1995-2002: Chronic Drinking Among Maine Adults by Age Group: Percent of Adult Males 18+ Who Report an Average of Two or More Drinks Per Day and Females 18+ Who Report an Average of More Than One Drink Per Day



	1995	1997	1999	2001	2002
18-34	1.2%	3.5%	4.2%	5.9%	8.7%
35-49	1.2%	2.6%	2.5%	6.6%	7.1%
50-64	2.5%	3.3%	3.7%	4.9%	5.6%
65+	2.0%	0.8%	1.7%	3.9%	4.2%

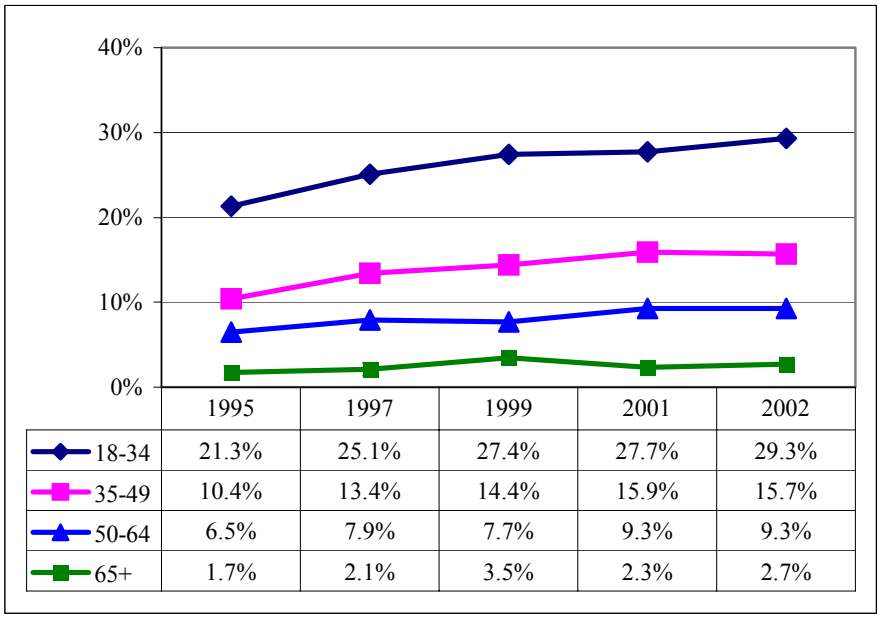
Figure 40. BRFSS 1995-2002: Binge Drinking Among Adults 18+ by Gender*



	1995	1997	1999	2001	2002
All adults	11.5%	13.8%	14.8%	15.4%	15.4%
Males	16.3%	22.5%	24.2%	24.9%	22.9%
Females	7.1%	5.8%	6.2%	6.8%	8.6%

*Binge Drinking is Five or More Drinks on an Occasion One or More Times in the Past Month

Figure 41. BRFSS 1995-2002: Binge* Drinking Among Maine Adults by Age Group



	1995	1997	1999	2001	2002
18-34	21.3%	25.1%	27.4%	27.7%	29.3%
35-49	10.4%	13.4%	14.4%	15.9%	15.7%
50-64	6.5%	7.9%	7.7%	9.3%	9.3%
65+	1.7%	2.1%	3.5%	2.3%	2.7%

*Binge Drinking is Five or More Drinks on an Occasion One or More Times in the Past Month

Maine Youth Drug and Alcohol Use Survey (MYDAUS) (2002, 2004)

The Maine Youth Drug and Alcohol Use Survey (MYDAUS) for 2004 (http://www.maine.gov/maineosa/survey/home.php) included a total of 75,165 Maine students in 6-12th grade, 45% males and 48% females, with 8% missing data. Figures 45 through 49 reflect both prevalence rates and trends through time, 2000-2004, for both alcohol and marijuana.

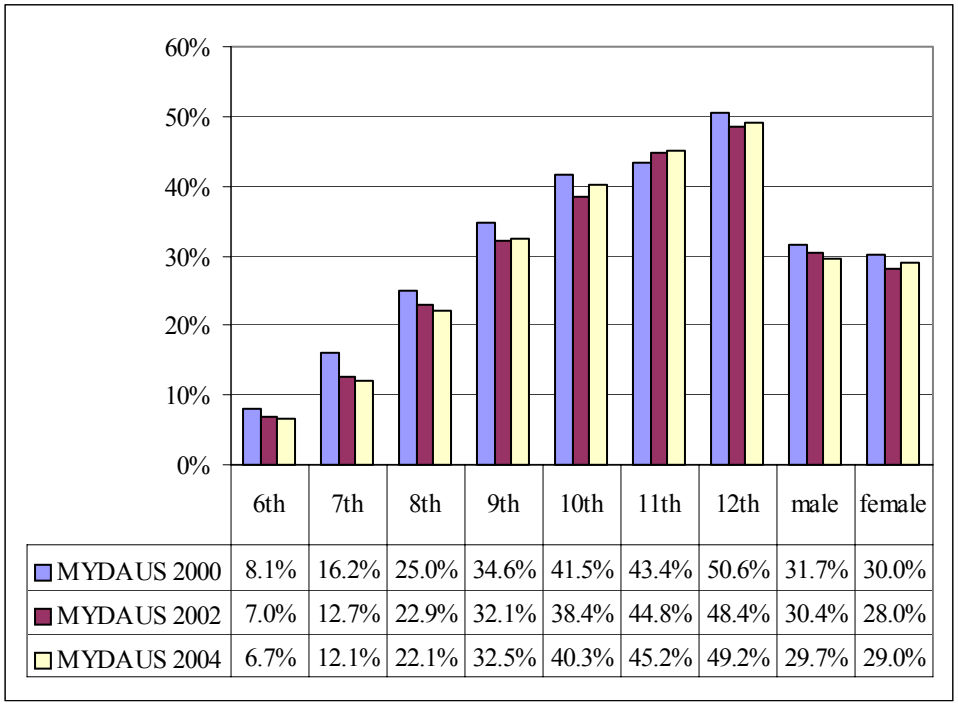
Marijuana

Recent marijuana use in all but 12th grade respondents seems to have peaked in 2000 and is decreasing slightly (Figure 49).

Alcohol

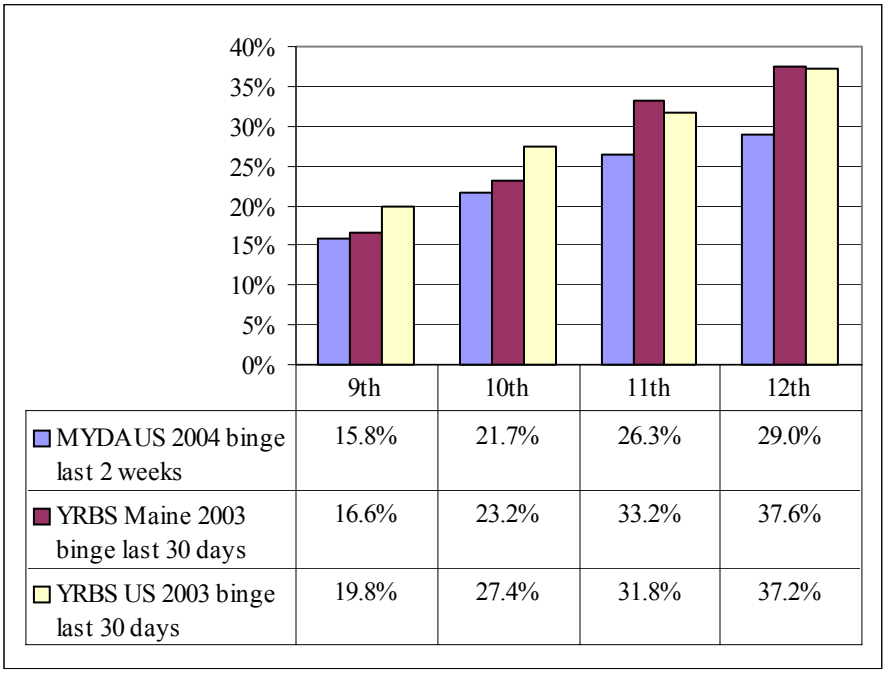
Alcohol use has increased slightly at all grades and in both genders since 2000 (Figure 54). Binge drinking rates are less for MYDAUS than for either the YRBS state or national rates in all grades in 2004 compared to 2002 (Figure 46); this may be a sampling issue. Lifetime and current use according to MYDAUS 2004, detailed in Figures 47 and 48, have been discussed above in comparison with YRBS and MTF statistics.

Figure 42. MYDAUS 2000, 2002, and 2004: Alcohol Use in the Last 30 Days



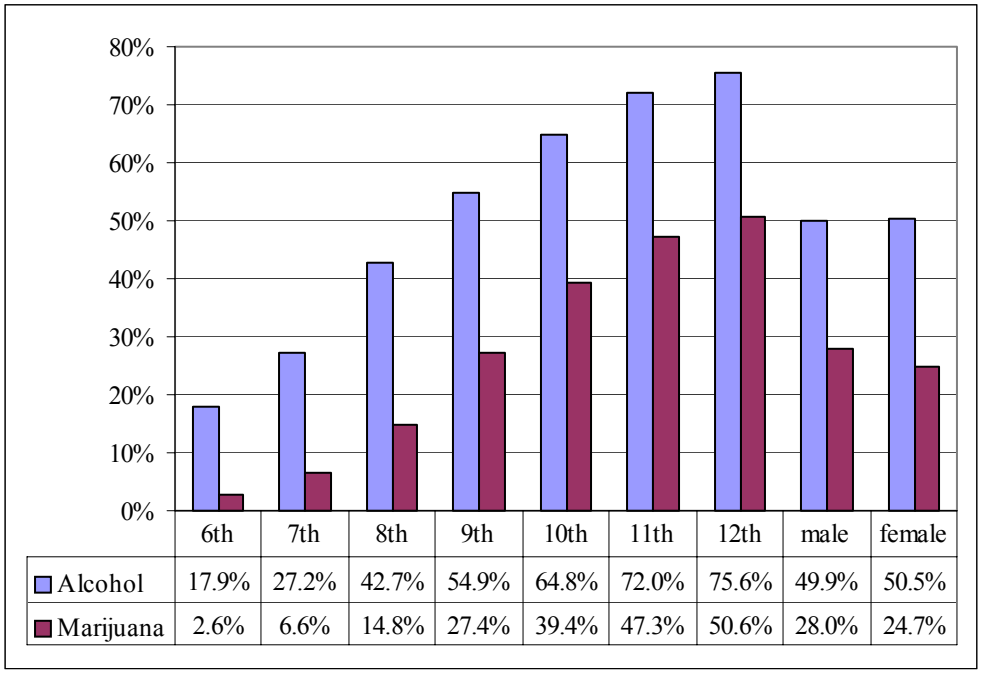
	6th	7th	8th	9th	10th	11th	12th	male	female
MYDAUS 2000	8.1%	16.2%	25.0%	34.6%	41.5%	43.4%	50.6%	31.7%	30.0%
MYDAUS 2002	7.0%	12.7%	22.9%	32.1%	38.4%	44.8%	48.4%	30.4%	28.0%
MYDAUS 2004	6.7%	12.1%	22.1%	32.5%	40.3%	45.2%	49.2%	29.7%	29.0%

Figure 43. MYDAUS 2004, YRBS Maine 2003, and YRBS U.S. 2003: Comparison of Recent Binge Drinking by Grade



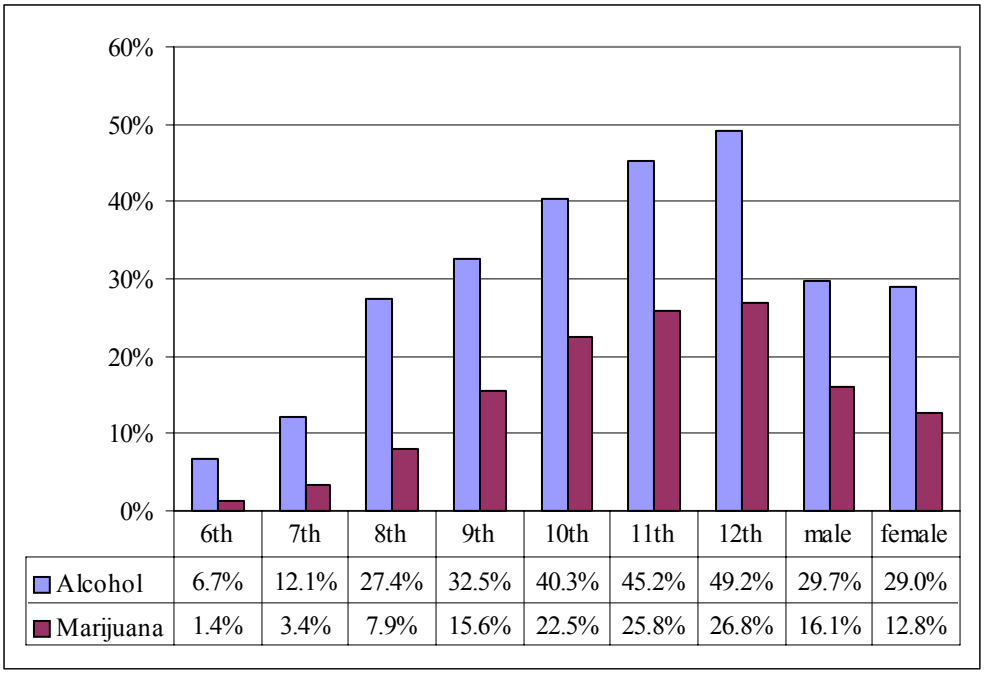
	9th	10th	11th	12th
MYDAUS 2004 binge last 2 weeks	15.8%	21.7%	26.3%	29.0%
YRBS Maine 2003 binge last 30 days	16.6%	23.2%	33.2%	37.6%
YRBS US 2003 binge last 30 days	19.8%	27.4%	31.8%	37.2%

Figure 44. MYDAUS 2004: Lifetime Use of Alcohol and Marijuana by Sex and by Grade



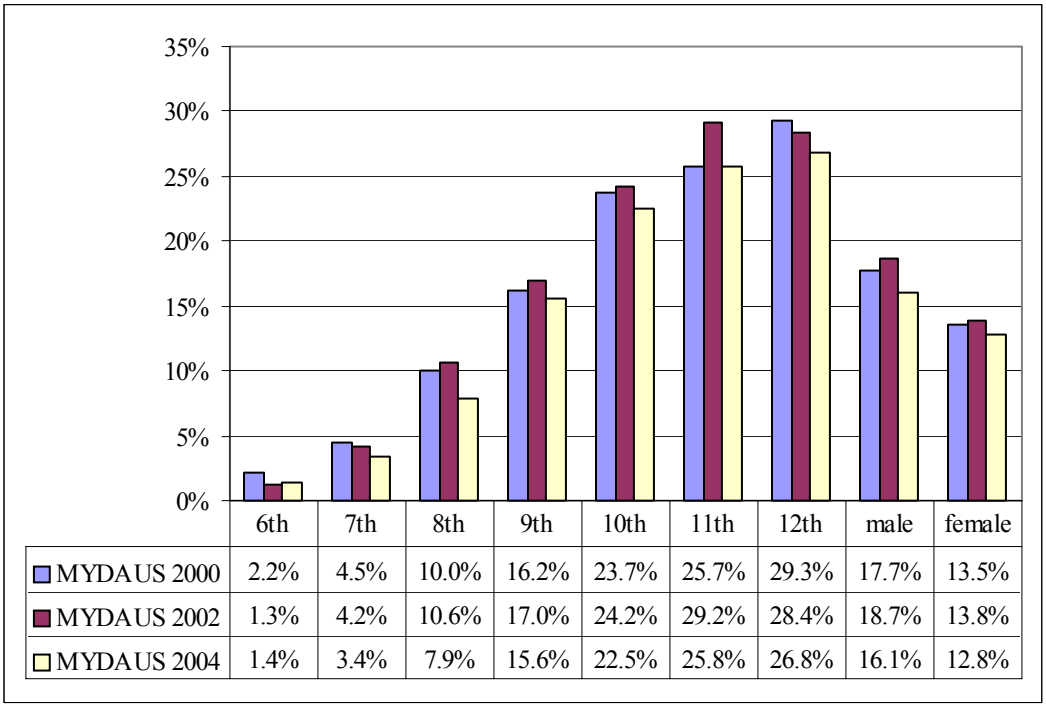
	6th	7th	8th	9th	10th	11th	12th	male	female
Alcohol	17.9%	27.2%	42.7%	54.9%	64.8%	72.0%	75.6%	49.9%	50.5%
Marijuana	2.6%	6.6%	14.8%	27.4%	39.4%	47.3%	50.6%	28.0%	24.7%

Figure 45. MYDAUS 2004: Alcohol and Marijuana Use Last 30 Days by Sex and by Grade



	6th	7th	8th	9th	10th	11th	12th	male	female
Alcohol	6.7%	12.1%	27.4%	32.5%	40.3%	45.2%	49.2%	29.7%	29.0%
Marijuana	1.4%	3.4%	7.9%	15.6%	22.5%	25.8%	26.8%	16.1%	12.8%

Figure 46. MYDAUS 2000, 2002, and 2004: Marijuana Use Last 30 Days



	6th	7th	8th	9th	10th	11th	12th	male	female
MYDAUS 2000	2.2%	4.5%	10.0%	16.2%	23.7%	25.7%	29.3%	17.7%	13.5%
MYDAUS 2002	1.3%	4.2%	10.6%	17.0%	24.2%	29.2%	28.4%	18.7%	13.8%
MYDAUS 2004	1.4%	3.4%	7.9%	15.6%	22.5%	25.8%	26.8%	16.1%	12.8%

Accidental Injury and Death

Poisoning Exposures –Northern New England Poison Center, Maine Data

Alcohol

Data for calendar year 2004 reveals that there were 114 calls regarding poisoning exposures due to abuse or withdrawal for alcohols, including beverages, mouthwash, rubbing alcohol, hairspray, and hand sanitizer.

Deaths –Maine Office of Chief Medical Examiner.

Marijuana

Marijuana is not implicated as the cause of any Maine overdose deaths.

Alcohol

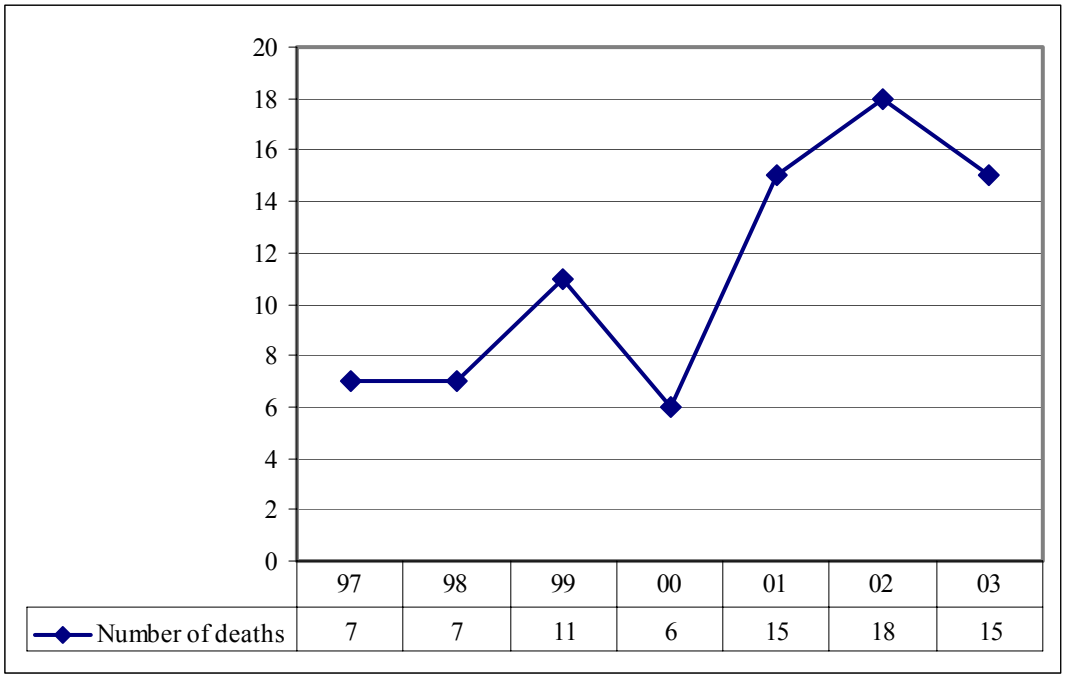
Alcohol is frequently present in the toxicology findings for individuals dying of drug overdose. Of the 148 drug deaths in 2003, alcohol was mentioned as a co-occurring cause in 16%. In an additional 49 cases alcohol was implicated as a cause or contributing factor without drug involvement; of these, 15 were accidental deaths and 30 were natural. These 197 (148 + 49) deaths were all medical examiner cases. Many other deaths annually are associated with alcohol but are not suspicious or unattended, and hence are not investigated as medical by the medical examiner. The most recent data from the

Office of Data, Research and Vital Statistics for alcohol-related deaths is for the calendar year 2000, when 320 male and 153 females died; this includes medical examiner cases where alcohol is implicated as a cause of death...

Figure 50 shows the number of deaths due to drugs in which alcohol was also mentioned as a cause. Although the numbers are small, it is evident that these deaths have more than doubled, from around 6-11 between 1997-2000 to 15-18 from 2001-2003. Although 2004 is approximately 40% complete, there are already nine cases in which alcohol has been implicated as a cause in combination with other substances.

Of the 374 deaths in the 1997-June 2002 database, 69 (18.4%) had cannabinoids present in their toxicology findings. Of those 374 deaths, 93 (24.9%) had ethyl alcohol present in their toxicology findings, but not necessarily implicated as the cause of death. 63% of these were accidental deaths, about the same proportion of accidental deaths in the study population (66%).

Figure 47. OCME 1997-2003: Drug-Induced Deaths Due to Alcohol in Combination with Other Substances



	97	98	99	00	01	02	03
Number of deaths	7	7	11	6	15	18	15

Substance Abuse Treatment

Treatment Data System (TDS) – Maine (FY1995-FY2004).

Marijuana

Figures 51A and B show the trend in treatment admissions for the primary problem of marijuana abuse. Since 1990, marijuana admissions have constituted 12% of

all TDS admissions: Marijuana admissions, except for a slight dip in 2000, have increased steadily since 1995; since the 2000 dip, they have increased 38%.

Table 12 shows basic socio-demographic profiles from the TDS data for clients admitted for a primary problem of marijuana in 2003 and 2004. Marijuana admissions have a gender ratio of 75-76% male, but an average age of 24-25 ± 10). The percent that are unemployed increased from 24.9% to 28.8%, and the percent that are homeless has increased from 14.0% to 15.4%. The average age at first use is 14 ± 3 to ± 4 years.

Table 13 depicts the role of marijuana as a secondary or tertiary problem in unduplicated drug treatment admissions. The polypharmacy combinations are similar in frequency and proportion between 2003 and 2004; 2004 data are used here. Alcohol is seen as a secondary/tertiary problem in nearly half (45.7%) of admissions for marijuana (Figure 54). Only l7.2% of alcohol admissions report marijuana as a primary or secondary problem (Figure 53). Marijuana is reported as a secondary/tertiary problem in 29.6% of cocaine admissions (Figure 16), 26.0% of methamphetamine admissions (Figure 37), 18.8% of analgesic admissions (Figure 26), and 19.1% of benzodiazepine admissions (Figure 36).

Alcohol

Figures 52A and B show the trend in treatment admissions for the primary problem of alcohol abuse. Since 1990, alcohol admissions have constituted 74% of all TDS admissions: Alcohol admissions decreased somewhat in the late 1990's to a low in 1999; since then, annual admissions increased by 18%.

Table 12 shows basic socio-demographic profiles from the TDS data for clients admitted for a primary problem of alcohol in 2003 and 2004. Alcohol admissions are overwhelmingly male (79%), about half are never married, approximately a third are unemployed, and more than a third are homeless, although the percent of alcohol admissions who are homeless has decreased from 41.6% to 36.4%. The average age is 39 ± 12, and the mean age at first use is 15 ± 4 years.

Table 13 depicts the role of alcohol as a secondary or tertiary problem in unduplicated drug treatment admissions. The polypharmacy combinations are similar in frequency and proportion between 2003 and 2004; 2004 data are used here. Alcohol is seen as a secondary/tertiary problem in nearly half (45.7%) of admissions for marijuana (Figure 54). Only l7.2% of alcohol admissions report marijuana as a primary or secondary problem (Figure 53). Alcohol is reported as a secondary/tertiary problem in 17.9% of cocaine admissions (Figure 16), 17.3% of benzodiazepine admissions (Figure 36).

Table 18. TDS FY1995-FY2004: Number of Unduplicated Clients Admitted for Primary Problem of Alcohol Abuse

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Number of Clients	7201	7298	6820	6899	6681	6747	7044	7225	7733	7873

Figure 48. TDS FY1995-FY2004: Percent of Unduplicated Clients Admitted for Primary Problem of Alcohol Abuse

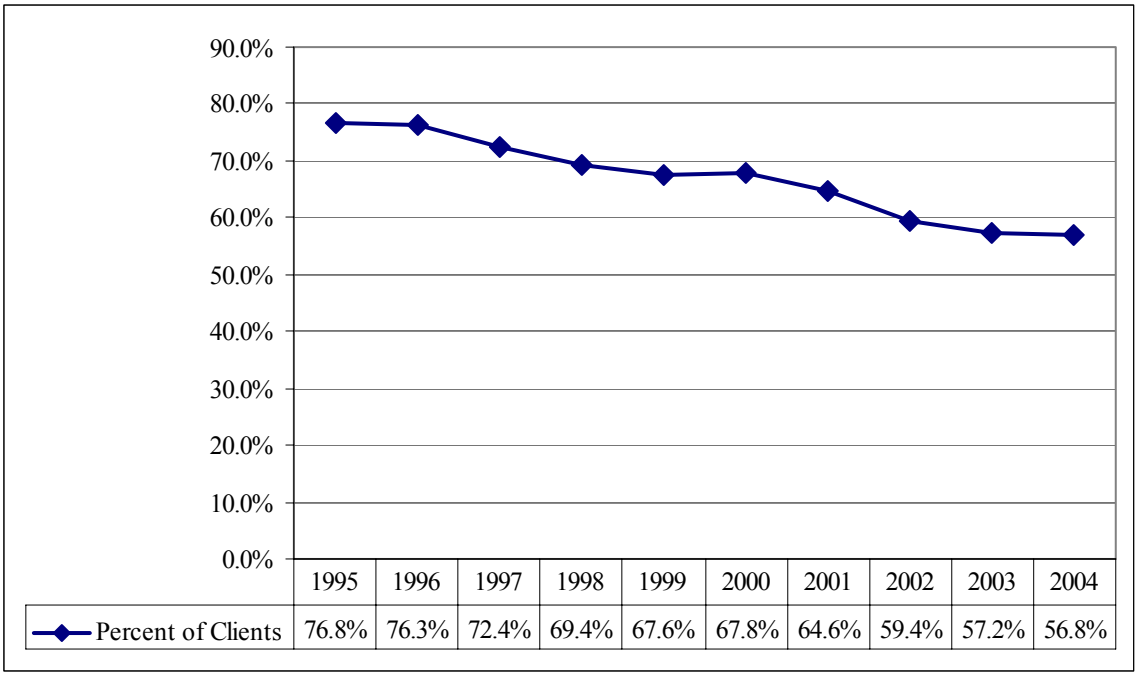


Table 19. TDS FY1995-FY2004: Number of Unduplicated Clients Admitted for Primary Problem of Marijuana Abuse

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Number of Clients	840	958	1069	1177	1255	1238	1450	1585	1869	1704

Figure 49. TDS FY1995-FY2004: Percent of Unduplicated Clients Admitted for Primary Problem of Marijuana Abuse

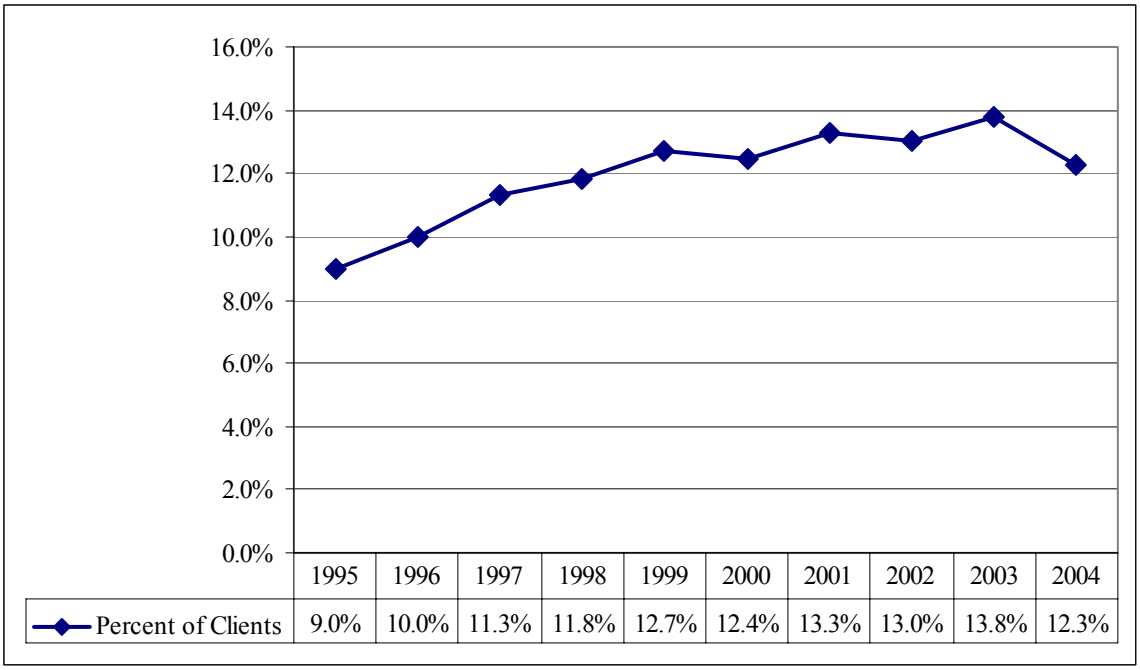


Table 20. TDS FY2003 and 2004: Profiles for Primary Alcohol and Marijuana Admissions

Primary Drug	N	% Male	% Never Married	% Unemployed	% Homeless	Mean (sd) Age	Mean (sd) Age 1st Use
Alcohol 2003	13,405	79.2	48.0	34.7	41.6	39.1 (11.5)	14.7 (4.6)
Alcohol 2004	12,524	79.4	49.0	35.1	36.4	39.0 (11.8)	14.9 (4.4)
Marijuana 2003	2,286	75.4	76.6	24.9	14.0	24.9 (10.5)	14.0 (3.6)
Marijuana 2004	2,044	75.7	78.0	28.8	15.4	24.2 (9.7)	14.0 (3.3)

Table 21. TDS FY2004: Role of Alcohol and Marijuana as a Secondary or Tertiary Problem in Maine Substance Abuse Treatment Admissions

Primary Problem	% of Unduplicated Admissions in Which Alcohol Appears as Secondary or Tertiary Problem	% of Unduplicated Admissions in Which Marijuana Appears as Secondary or Tertiary Problem
Alcohol (N=12,524)	--	17.2%
Marijuana (N= 2,044)	45.7%	--
Cocaine (N= 670)	17.9%	29.6%
Heroin/Morphine (N= 1,234)	4.0%	9.9%
Methadone (N= 138)	4.3%	4.3%
Analgesics (N= 1,694)	8.7%	18.8%
Methamphetamine (N= 50)	12.0%	26.0%
Benzodiazepines (N= 110)	17.3%	19.1%

Figure 50. TDS FY2004: Co-Occurring Substance Problems When Primary Admission Problem is Alcohol (N=12,524)

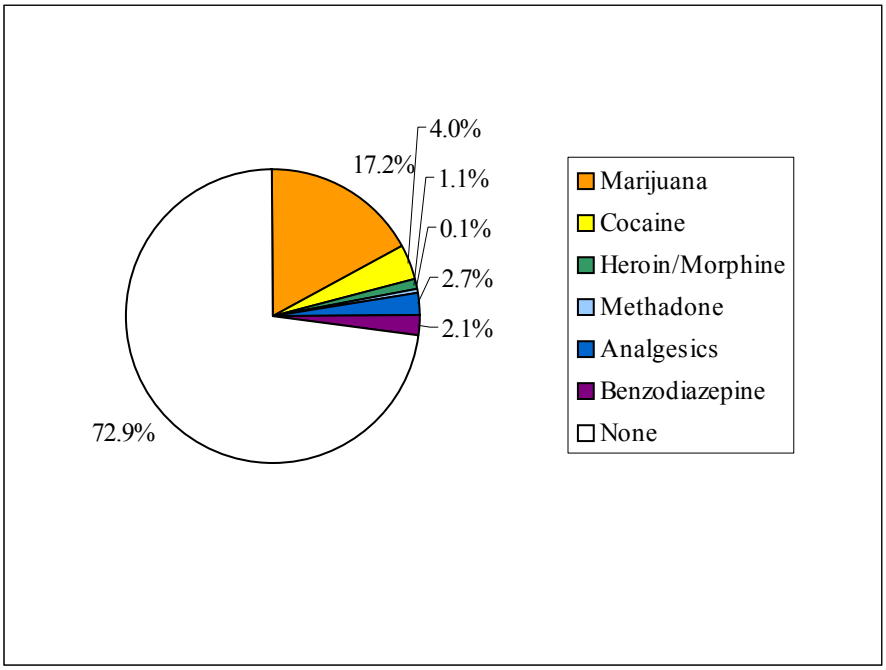
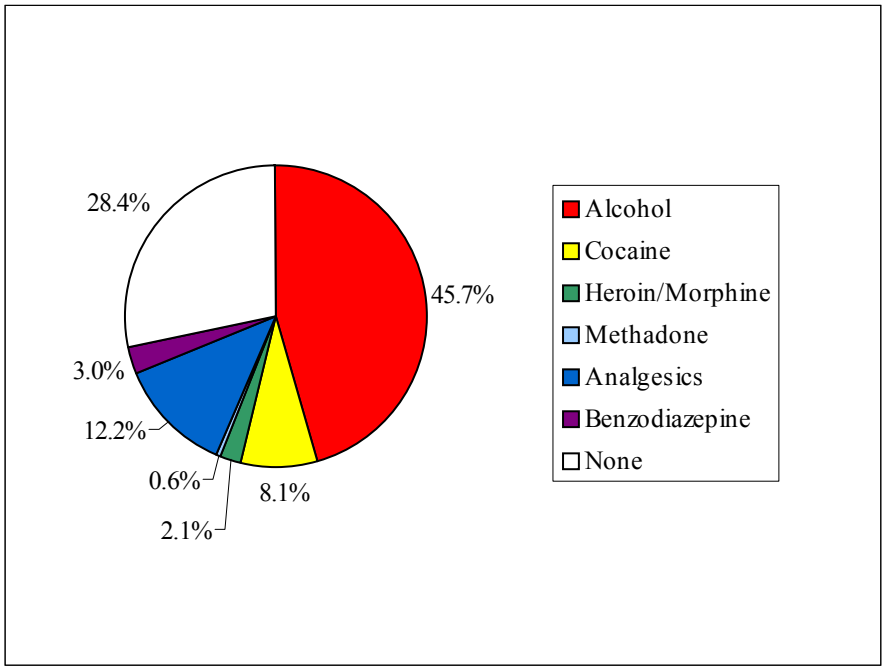


Figure 51. TDS FY2004: Co-Occurring Substance Problems When Primary Admission Problem is Marijuana (N=2,044)



Drug Trafficking: Arrests, Seizures, and Prosecutions

Maine Drug Enforcement Agency (MDEA)

Marijuana

Preliminary data for MDEA arrests (N=719) for FY2004 include 241 (34%) for marijuana, an increase over the reported FY2003 total which was 85 (18%). In FY2002 the proportion of marijuana arrests was "three percent lower." Arrests have declined since FY2000. It is important to note that arrests and multi-jurisdictional drug enforcement are resource-dependent; such funds fluctuate from year to year, and must be reallocated to combat highest priority threats.

Although the majority of marijuana in Maine originates from western states and Mexico, it is grown on a large and small scale within the state. During calendar year 2002, 4,735 plants in 133 outdoor plots were eradicated (a 49% decline from 2001), as well as 2,354 plants in 133 indoor grow locations (a 21% decline from 2001). In addition to these live plants that were eradicated, 333 pounds of processed marijuana were seized, 94 persons were arrested on state charges, and 68 firearms were seized. During fiscal year 2003, 3,022 marijuana plants were seized (down from 3,848 in FY2002) and 447 kg of processed marijuana was seized (up from 202 kg in FY2002).

Maine Drug Threat Assessment Update (NDIC), August 2003

Marijuana

In their 2003 report, which covers 2002, the NDIC reported that "Caucasian criminal groups, local independent dealers, and OMGs (Outlaw Motorcycle Gangs) transport most of the marijuana available in Maine from Mexico and Canada, as well as from distribution centers in Massachusetts." They use private and commercial vehicles as well as package delivery couriers.

Health and Environmental Testing Laboratory (HETL): Seizures, FY 2003

Marijuana

Of the 1,076 seizures for 2003, 185 (17%) tested as marijuana, hashish, or THC.

Department of Attorney General (AG), Annual Report for FY2004 –Prosecutions

Marijuana

Drug prosecutions handled by the AG are focused on cases from the southern and western part of Maine; in other areas the district attorneys are more likely to prosecute. Marijuana prosecutions increased during FY2004 for the first time since FY1998 (Table 14). The average age of those prosecuted for marijuana is about the same as the average age for drug cases in general, 33; it is lower for females (27) than for males (33).

Figure 52. AG FY2001-FY2004: Percent of Prosecution Cases Involving Marijuana

Fiscal Year	Percent of Cases
2004	24.4
2003	18.8
2002	20.6
2001	32.3

Club Drugs, Hallucinogens, and Inhalants

Summary

Club drugs commonly include MDMA (3-4 methylenedioxy-methamphetamine or ecstasy), and hallucinogens, including gamma hydroxybutrate (GHB), gamma butyrate lactone (GBL), 1-4 butanediol (1, 4 BD), ketamine, phencyclidine (PCP), psilocybin, rohypnol, lysergic acid diethylamide (LSD), and dextromethorphan (DXM). The latter are broadly classed as hallucinogens, but have somewhat different effect subcategories, including the following terms and examples: psychedelic (LSD, shrooms), entactogen (MDMA), delirient (Jimson Weed), and dissociatives (PCP, ketamine, dextromethorphan, nitrous oxide, and GHB). A large number of street names exist for each of these drugs, and the reader is referred for these to Maxwell (2004) "Patterns of Club Drug Use in the U.S," University of Texas- Austin.

Methamphetamine is sometimes included as a club drug, although it is reported in this study with the stimulants in another section. Rohypnol (the "date rape" drug) is also sometimes included as a club drug. It is a benzodiazepine and not covered in this report.

Other abused substances included here are inhalants. Steroids are not sufficiently documented in Maine for inclusion here.

Following local police crack-downs on raves, including prohibition of renting space out for that purpose, arrests and seizures involving club drugs have decreased. This mirrors a national pattern of decreased use. The Maine Youth Drug and Alcohol Use Survey (MYDAUS, 2000, 2002, 2004) demonstrates, however, that these drugs are still common among youth in grades 6 -12. Ecstasy (MDMA) has been used by 3.9% in their lifetimes, and 2.6% have used it in the previous 30 days. Hallucinogens have been used by 4.6% of students in their lifetimes, and 2.3% in the previous 30 days. Males use these substances slightly more than females. The chronological trends show a reduction in the current use of ecstasy since 2002 (in 12th grade the reduction is from 3.4% to 1.6%). Current use of other hallucinogens has decreased slightly from 2000 to 2002, but then increased in 2004 (in 12th grade: 2000 - 4.4%; 2002 - 2.6%, and 2004 - 3.2%). Maine youth have a lower percent use of ecstasy (about 4%) than nationally (11%).

Inhalants have been used by 12.0% of students in their lifetimes, and 2.6% have used them in the previous 30 days. Inhalant use peaks in the 8th grade. Maine youth from MYDAUS-2004 in grades 6-12 as a whole match the national (YRBS -2003) statistics among those in grades 9-12 in the percent of lifetime inhalant use (both 12%).

Qualitative interviews conducted by CESN support the MYDAUS findings that club drugs are more commonly used by youth than adults. Respondents were equivocal about whether club drugs were easier or harder to get in the last six months. Among TDS admissions for substance abuse, the number with hallucinogens as a primary problem peaked in FY2002, 51 admissions, but has decreased to 15 in FY2004.

There have been no deaths attributed to orally ingested club drugs in the past seven years. Of accidental poisoning exposures due to abuse or withdrawal among club drugs, hallucinogens, and inhalants, the largest frequency, 62, is for dextromethorphan.

Deaths due to inhalants (excluding carbon monoxide) are very infrequent.

Club drugs constitute 3% of the MDEA arrests for FY2004, with rates characterized by the MDEA as stable and low. Arrests for ecstasy in particular have decreased from 5% in FY2002 to 1% in FY2004. Sources for these substances are on the west coast, New York, and Massachusetts, with local dealers. Outlaw motorcycle gangs are involved in transporting from Canada. MDMA/ecstasy trafficking is often combined with cocaine. Hallucinogenic mushrooms are more commonly used by people of college age, but ecstasy is more common among mid-teens to young adults. Of 1076 seizures tested at the HETL in FY2003, 46 (4.3%) were club drugs. Prosecutions for club drugs in FY2004, only 1.7%, have decreased since peaking in FY2002 at 10%.

Qualitative Interviews

Data from interviews of persons in either the needle exchange program or the homeless shelter in Portland, and persons going through the intake process in the opiate treatment programs during the summer of 2004 indicate that "club drugs" are present on the street (Table 1). The interview instrument did not provide a specific definition of what substances were included in the category, but solicited opinions from the respondents.

Only about one to two-thirds of interviewees answered specific questions about club drugs, resulting in very small sample sizes for particular answers. Of these, only about half had seen or heard of them in the last six months. Opinions varied regarding whether club drugs were easier (29%) or harder (36%) to get recently. The dominant trend mentioned was use by youth (70%) at raves, clubs, or dances. Several respondents noted that many users were in fact new users.

Reported Use in the General Population

National Survey NSDUH (2002, 2003)

According to the 2003 National Survey of Drug Use and Health (NSDUH), 2002 (33.5 million sampled) and 2003 (32.3 million sampled), the following comments can be made about club drugs:

- 19.4% of youth report it was fairly or very easy to obtain LSD
- 8% of respondents were current illicit drug users, and 0.5% were current hallucinogen users, including 0.2% who use ecstasy, and 0.3% who use inhalants
- Lifetime hallucinogen use among youth 12-17 was at its highest in 2001 (6.1%), declining to 5.7% in 2002.
- Lifetime hallucinogen use among young adults18-25: has increased from 14.3% in 1992 to 24.2% in 2002, the increase apparently due to ecstasy (MDMA)
- Trends in new users of ecstasy, LSD, and PCP between 1965 and 2001 show that ecstasy use rose rapidly between 1996 and 2000, whereas PCP has remained

steady since the mid 1980's. LSD use has gradually increased since 1993, peaking in 2000, and then dropping by 2001.

National Survey among Youth –YRBS (2003)

This biannual survey, which was started in 1991, targets students in grades 9-12 in public and private schools. It was taken from February through December, 2003 to measure health risk factors, including alcohol and drug use. 11.1% of students had used ecstasy in their lifetimes.

Just over twelve percent (12.1%) of students had ever used inhalants in their lifetimes and 3.9% had used inhalants during the previous 30 days;

Maine Youth Drug and Alcohol Use Survey (MYDAUS) (2002, 2004)

The Maine Youth Drug and Alcohol Use Survey (MYDAUS) for 2004 included a total of 75,165 Maine students in grades 6 - 12, 45% males and 48% females, with 8% missing data.

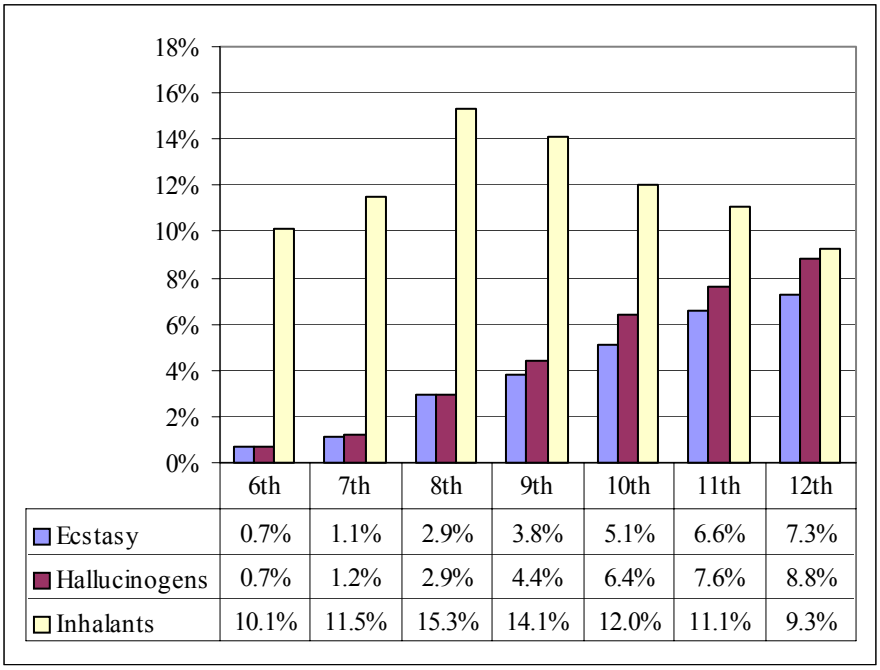
Lifetime Use – MYDAUS 2004. Figure 55 details rates of club drug use by grade, sexes combined. Overall, ecstasy has been used by 3.9% of students, hallucinogens by 4.6%. For all three of these, use by males was slightly more than by females. Lifetime use of ecstasy and hallucinogens rises steadily from almost no use in grade 6 to about 7.3% (ecstasy) and 8.8% (hallucinogens) in grade12.

Inhalants on the other hand had been used by 10.1% of 6th graders; the percentage peaks in 8th grade at 15.3% and declines gradually to 9.3% by grade 12. Overall use of inhalants is 12.0%.

Previous 30-day Use - MYDAUS 2000-2004 (Figure 56). In 2002, ecstasy had been used in the previous month by 2.6% of students overall (3.0% male and 2.2% female) (Figure 57 shows the breakout for each grade). This decreased to 1.4% (1.7% male and 1.0% female) in the 2004 MYDAUS. Hallucinogens had been used in the previous month by 2.3% of students (2.8% male and 1.8% female) in the 2002 MYDAUS, down from the total 2.8% use in 2000; in the 2004 MYDAUS 2.2% of students reported used of hallucinogens in the previous 30 days (2.6% male and 1.6% female) (Figure 58 shows the breakout for each grade).

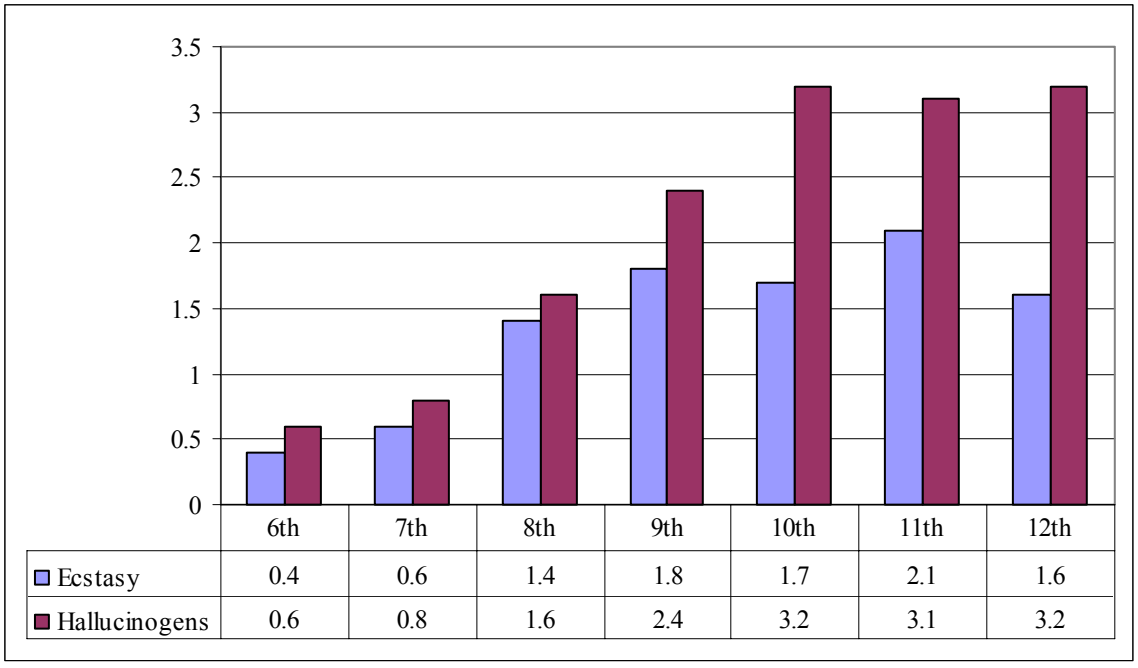
Inhalants had been used by 4.5% of students (4.6% male and 4.4% female) in the 2002 MYDAUS, about the same as 2000 (4.5% total, 5.0% male and 4.1% female); in the 2004 MYDAUS the total had risen to 4.9% (5.0% male and 4.9% female) (Figure 59 shows the breakout for each grade).

Figure 53. MYDAUS 2004: Lifetime Use of Club Drugs, Hallucinogens, and Inhalants by Grade



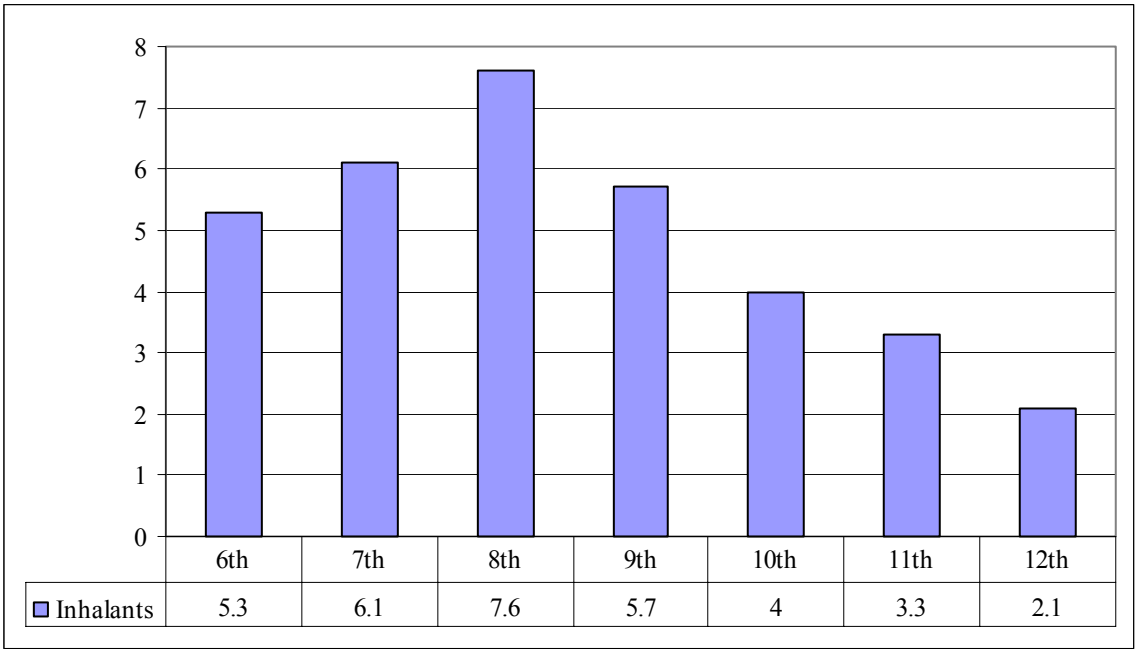
	6th	7th	8th	9th	10th	11th	12th
Ecstasy	0.7%	1.1%	2.9%	3.8%	5.1%	6.6%	7.3%
Hallucinogens	0.7%	1.2%	2.9%	4.4%	6.4%	7.6%	8.8%
Inhalants	10.1%	11.5%	15.3%	14.1%	12.0%	11.1%	9.3%

Figure 54. MYDAUS 2004: Previous 30-Day Use of Club Drugs and Hallucinogens by Grade



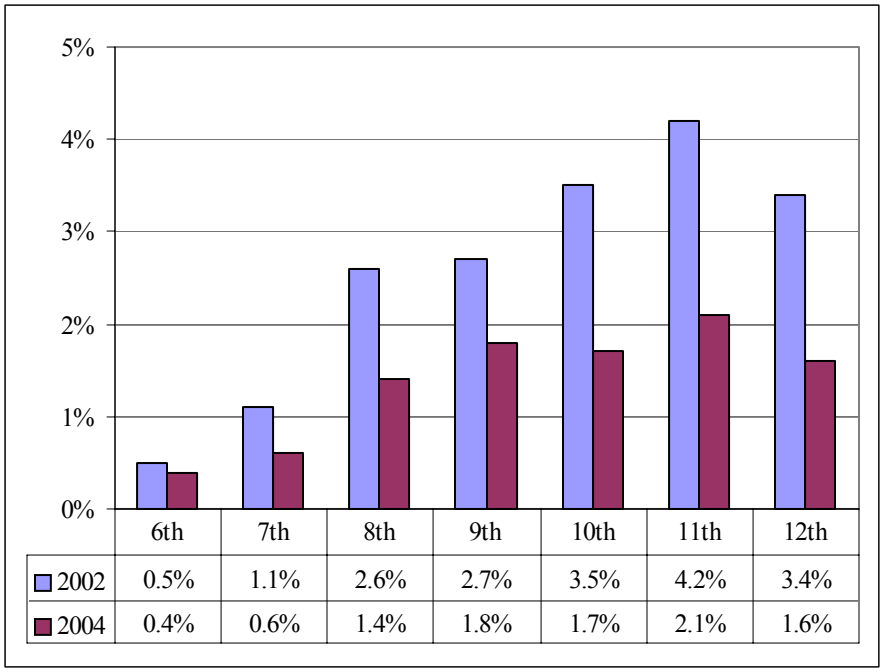
	6th	7th	8th	9th	10th	11th	12th
Ecstasy	0.4	0.6	1.4	1.8	1.7	2.1	1.6
Hallucinogens	0.6	0.8	1.6	2.4	3.2	3.1	3.2

Figure 55. MYDAUS 2004: Previous 30-Day Use of Inhalants by Grade



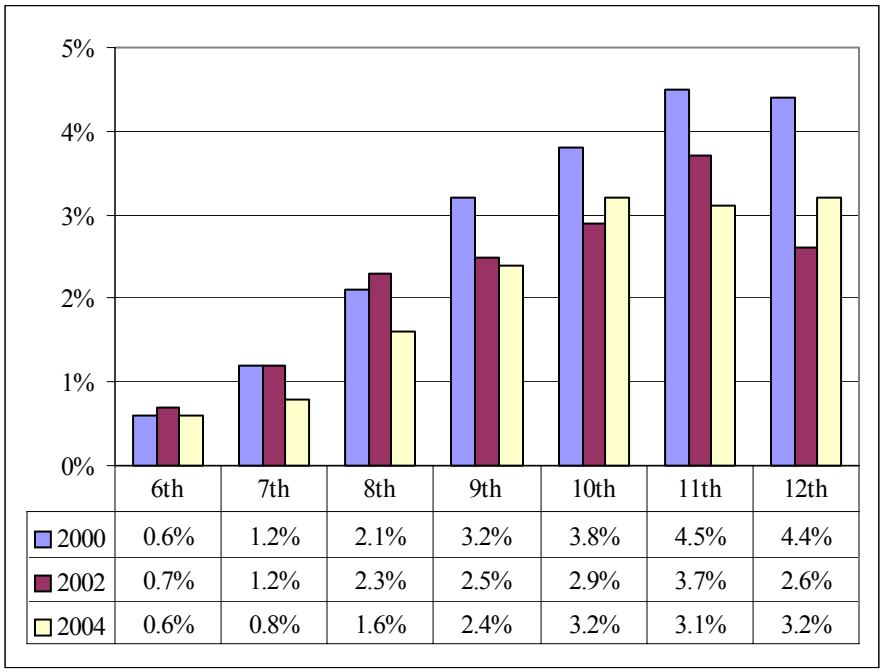
	6th	7th	8th	9th	10th	11th	12th
Inhalants	5.3	6.1	7.6	5.7	4	3.3	2.1

Figure 56. MYDAUS 2002, 2004: Ecstasy Previous 30-Day Use by Grade



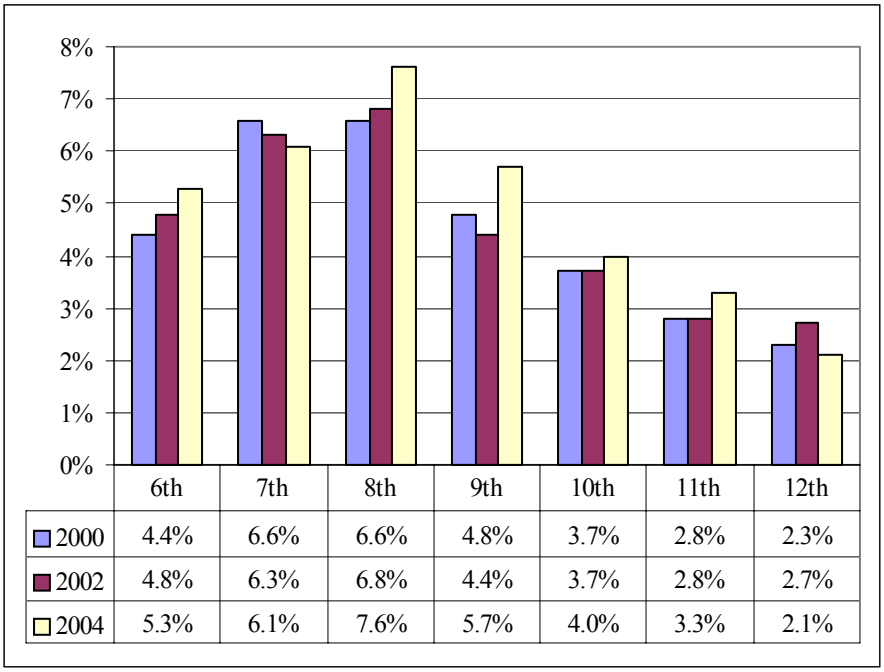
	6th	7th	8th	9th	10th	11th	12th
2002	0.5%	1.1%	2.6%	2.7%	3.5%	4.2%	3.4%
2004	0.4%	0.6%	1.4%	1.8%	1.7%	2.1%	1.6%

Figure 57. MYDAUS 2000, 2002, 2004: Hallucinogens Previous 30-Day Use by Grade



	6th	7th	8th	9th	10th	11th	12th
2000	0.6%	1.2%	2.1%	3.2%	3.8%	4.5%	4.4%
2002	0.7%	1.2%	2.3%	2.5%	2.9%	3.7%	2.6%
2004	0.6%	0.8%	1.6%	2.4%	3.2%	3.1%	3.2%

Figure 58. MYDAUS 2000, 2002, 2004: Inhalants Previous 30-Day Use by Grade



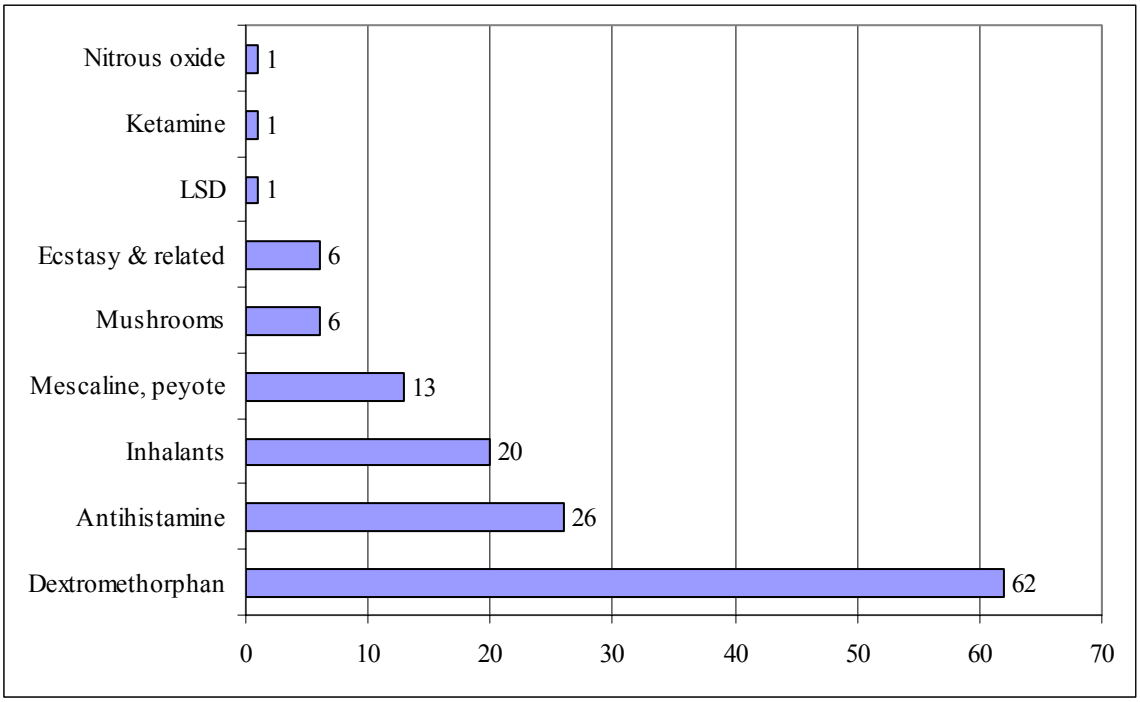
	6th	7th	8th	9th	10th	11th	12th
2000	4.4%	6.6%	6.6%	4.8%	3.7%	2.8%	2.3%
2002	4.8%	6.3%	6.8%	4.4%	3.7%	2.8%	2.7%
2004	5.3%	6.1%	7.6%	5.7%	4.0%	3.3%	2.1%

Accidental Injury and Death

Poisoning Exposures –Northern New England Poison Center, Maine Data

The 2004 poisoning exposures due to abuse or withdrawal include a wide variety of hallucinogenic drugs, club drugs, inhalants, as well as OTC cough suppressants and antihistamines. (see Figure 60). The OTC substance with the highest frequency is dextromethorphan, used as an hallucinogen. Antihistamines are also frequently abused, particularly diphenhydramine (Benadryl).

Figure 59. NNEPC-ME 2004: Poisoning Exposures due to Abuse or Withdrawal for Inhalants, Hallucinogens, and Club Drugs



Deaths –Maine Office of Chief Medical Examiner

There have been no deaths due to ingested club drugs in Maine since 1997. One individual who died in 2004 of mixed drug poisoning had toxicology findings that included MDMA. This is a very rare finding. Current statistics did not quantify inhalant deaths; however, such deaths are very infrequent.

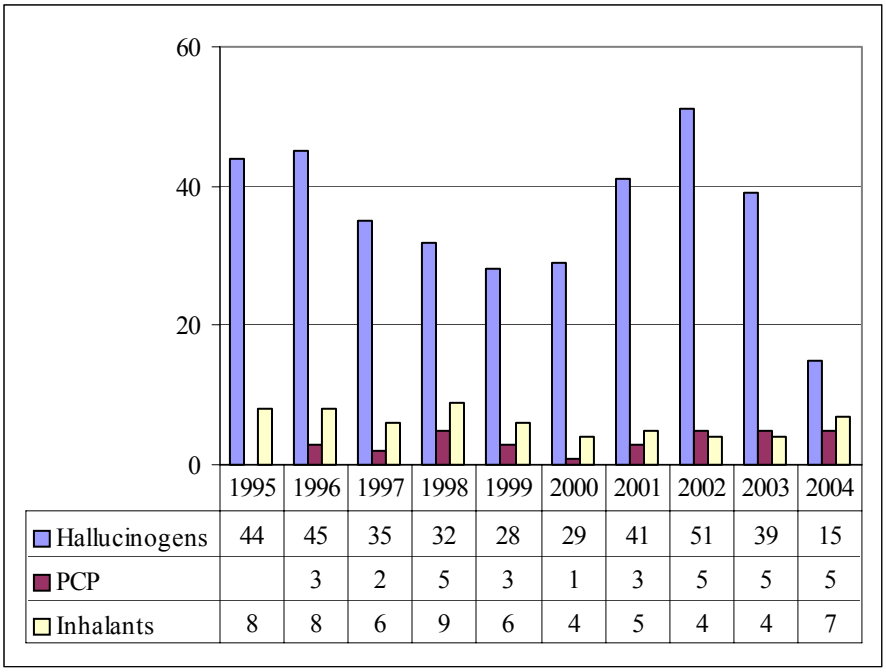
Substance Abuse Treatment

Treatment Data (TDS)

Figure 61 depicts unduplicated drug treatment admissions for specific primary problems. Due to the database structure, prior to September, 2003, MDMA was grouped

with the amphetamines and cannot be specifically broken out. Thus, the category of hallucinogens excludes MDMA on this figure. Although hallucinogen use increased in the 1990s, it peaked in 2002 and has decreased markedly since then. PCP and inhalants have remained somewhat stable. In fiscal year 2004, there were 18 admissions with MDMA given as the primary problem, more than double any other club drug (PCP-5, LSD-7, ketamine-1, other hallucinogens-8, and inhalants-7).

Figure 60. TDS FY2004: Unduplicated Admissions for Primary Problem of PCP, Hallucinogens, and Inhalants



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Hallucinogens	44	45	35	32	28	29	41	51	39	15
PCP		3	2	5	3	1	3	5	5	5
Inhalants	8	8	6	9	6	4	5	4	4	7

Drug Trafficking: Arrests, Seizures, and Prosecutions

Maine Drug Enforcement Agency (MDEA)

Of 719 MDEA arrests in FY2004, arrests for sale or possession of club drugs were distributed as follows: LSD 1 (0.1%), psilocybin 10 (1.4%), MDMA 9 (1.3%), PCP 1 (0.1%). Five percent of MDEA arrests in FY2002 were for MDMA, so the rate has dropped. Regarding LSD and other hallucinogens, the rates have remained stable. LSD and psilocybin are available, and LSD is sold for $5 per unit unless it is a bulk purchase. These drugs are associated with music events and raves. The sources are on the west coast, with local dealers making the contacts out of state. Psilocybin mushrooms are available and sometimes grown in small quantities, with instructions available from the internet. The psilocybin activity is associated with persons of college age. MDMA (ecstasy) is associated with mid-teens to young adults, and with raves, particularly in the

mid-coast area. The cost for ecstasy is reported at about $25 per pill. However, the rates of use have been stable and low. Ketamine and GHB seem not to have been a problem.

Maine Drug Threat Assessment Update (NDIC), August 2003

In 2003, the NDIC noted that MDMA (abused by adolescents and young adults at raves or techno parties and on college campuses) and khat (abused within Maine's Somali population) posed an increasing threat in Maine. LSD was seen as having a low threat potential.

Within the Somali community abuse and trafficking of khat (fresh leaves of the northeast Africa and Arabian peninsula plant *Catha edulis)* is common. When fresh (under 48 hours) this plant contains cathinone which is a Schedule I drug; this deteriorates to cathine, a Schedule IV drug. In Africa and the Middle East this substance is sold on the open market. In 2002, law enforcement seized 51 pounds of khat at the Portland airport and made an arrest. According to the ONDCP Maine Assessment for 2004, khat is being marketed. Khat is transported to Maine from Great Britain (commercial aircraft couriers) via New York City (air freight shipping).

MDMA or ecstasy is the most frequently abused of these. Of 42 law enforcement respondents, 74% reported high or medium MDMA availability in their jurisdiction, particularly Bangor, Biddeford, Gardiner, Saco, and Waldoboro. MDMA dealers are the primary drug transporters. They use private vehicles when traveling from Massachusetts or New York. Transport from Canada occurs via outlaw motorcycle gangs, private vehicles, or commercial trucks. Dealers trafficking in MDMA frequently also are dealing cocaine. In early FY2003 MDMA was selling for $20- $30 retail in the Portland area. During FY2002 the MDEA seized 1,879 dosage units of MDMA.

LSD comes into Maine from Massachusetts and Canada in private vehicles, or from the west coast using package delivery services. During FY2002 the MDEA seized 317 dosage units of LSD. In early FY2003, LSD was selling for $3 to $7 per dosage unit.

Health and Environmental Testing Laboratory (HETL): Seizures, FY2003

Of the 1076 seizures, the following were in the club drugs category: 7 (1%) hallucinogens, 1 (0%) LSD, 3 (0%) ketamine, 16 (1%) "club drugs", 10 (1%) MDMA, 2 (0%) MDA, 1 (0%) dextromethorphan, 6 (1%) psilocin.

Department of Attorney General (AG) –Prosecutions

Over the last four years, prosecutions for club drugs have decreased overall. Table 15 shows fiscal year trends for ecstasy, PCP, and LSD. The Attorney General acted to end raves at the Lewiston Civic Center in 2001. Since then arrests involving MDMA, ketamine, and LSD are rare. The average age of arrestees has stayed at 23-24 for ecstasy, and has decreased from 27 in FY2003 to 21 in FY2004 for LSD; these ages are much younger than for cocaine/crack, heroin, prescription drugs, and marijuana.

Table 22. AG FY2001-2004: Percent of Prosecutions for Ecstasy, PCP and LSD

	FY2001	FY2002	FY2003	FY2004
Ecstasy	2.1%	7.4%	2.8%	1.7%
PCP	0.7%	0.3%	0.2%	--
LSD	1.4%	2.3%	0.4%	0.0%